

CAPITAL UNIVERSITY OF SCIENCE AND  
TECHNOLOGY, ISLAMABAD



**Impact of Shared Leadership on  
Project Success with Mediating  
Role of Team Building and  
Moderating Role of Project  
Complexity**

by

**Muneeb-ur-Rehman Tajwar**

A thesis submitted in partial fulfillment for the  
degree of Master of Science

in the

Faculty of Management & Social Sciences  
Department of Management Sciences

2020

Copyright © 2020 by Muneeb-ur-Rehman Tajwar

All rights reserved. No part of this thesis may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, by any information storage and retrieval system without the prior written permission of the author.

*Dedicated to my parents who dedicated their life to teach me how to step  
forward...*



## CERTIFICATE OF APPROVAL

### Impact of Shared Leadership on Project Success with Mediating Role of Team Building and Moderating Role of Project Complexity

by

Muneeb-ur-Rehman Tajwar

(MPM181054)

### THESIS EXAMINING COMMITTEE

S. No.	Examiner	Name	Organization
(a)	External Examiner	Dr. Riaz Ahmed	Bahria University, Islamabad
(b)	Internal Examiner	Dr. Mueen Aizaz Zafar	CUST, Islamabad
(c)	Supervisor	Dr. Jaleel Ahmed	CUST, Islamabad

---

Dr. Jaleel Ahmed

Thesis Supervisor

May, 2020

---

Dr. Mueen Aizaz Zafar

Head

Dept. of Management Sciences

May, 2020

---

Dr. Arshad Hassan

Dean

Faculty of Management & Social Sciences

May, 2020

## *Author's Declaration*

I, **Muneeb-ur-Rehman Tajwar** hereby state that my MS thesis titled “**Impact of Shared Leadership on Project Success with Mediating Role of Team Building and Moderating Role of Project Complexity**” is my own work and has not been submitted previously by me for taking any degree from Capital University of Science and Technology, Islamabad or anywhere else in the country/abroad.

At any time if my statement is found to be incorrect even after my graduation, the University has the right to withdraw my MS Degree.

**(Muneeb-ur-Rehman Tajwar)**

Registration No: MPM181054

## *Plagiarism Undertaking*

I solemnly declare that research work presented in this thesis titled “**Impact of Shared Leadership on Project Success with Mediating Role of Team Building and Moderating Role of Project Complexity**” is solely my research work with no significant contribution from any other person. Small contribution/help wherever taken has been duly acknowledged and that complete thesis has been written by me.

I understand the zero tolerance policy of the HEC and Capital University of Science and Technology towards plagiarism. Therefore, I as an author of the above titled thesis declare that no portion of my thesis has been plagiarized and any material used as reference is properly referred/cited.

I undertake that if I am found guilty of any formal plagiarism in the above titled thesis even after award of MS Degree, the University reserves the right to withdraw/revoke my MS degree and that HEC and the University have the right to publish my name on the HEC/University website on which names of students are placed who submitted plagiarized work.

**(Muneeb-ur-Rehman Tajwar)**

Registration No: MPM181054

## *Acknowledgements*

First of all, I am thankful to Allah Almighty, the most beneficial, most merciful, who gave me courage and strengthen to complete my thesis. Thank you! It all because of you my lord. Without you it wouldnt be possible. I would like to outstretch gratitude to number of people associated to me during this journey.

I would like to thank my supervisor, **Dr. Jalil Ahmad**, for his guidance, invaluable suggestions and continuous encouragement. Who helped me to coordinate my thesis work and especially in attaining the results. It was because of your continued support and guidance that I was able to do it! I express my deepest and earnest thanks to my father (Col Rafique) and mother for taking part in useful decisions & giving necessary advices, support and motivation for completion of this degree. I choose this moment to acknowledge your contributions appreciatively. Words cannot express my gratitude for everything you have done for me.

I would like to express my massive appreciation to Madni Saba Zaman for investing her full eort, precious time and unwavering support which was extremely valuable for my study both theoretically and practically. Last but not the least, Im grateful to this university for providing me with an environment, which has helped me learn and groom, and I will always be a proud member of this scholarly family.

I would like to express my cordial appreciation to all those who provided me the possibility to complete this report.

**(Muneeb-ur-Rehman Tajwar)**

Registration No: MPM181054

## *Abstract*

The purpose of this study is to examine the role of shared leadership (SL) and its impact on project success (PS). This study also analyzed the mediating role of team building and moderating role of project complexity. The data was gathered from project-based organizations of Pakistan. By using convenience sampling technique, data was gathered. The sample size considered for this study was 282. The data was analyzed by using SPSS. Based on the analysis, the results demonstrated that shared leadership has significant association with project success. Team building significantly act as mediator between shared leadership and project success. Project complexity act as moderator, that has a significant association with SL and PS, but it weakens the relationship. At the end of study practical and theoretical implications are discussed in detail, which can be helpful for project managers working in project-based organizations.



# Contents

<b>Author's Declaration</b>	<b>iv</b>
<b>Plagiarism Undertaking</b>	<b>v</b>
<b>Acknowledgements</b>	<b>vi</b>
<b>Abstract</b>	<b>vii</b>
<b>List of Figures</b>	<b>xi</b>
<b>List of Tables</b>	<b>xii</b>
<b>List of Abbreviations</b>	<b>xiii</b>
<b>1 Introduction</b>	<b>1</b>
1.1 Background of the Study . . . . .	1
1.2 Gap Analysis . . . . .	5
1.3 Problem Statement . . . . .	6
1.4 Research Questions . . . . .	7
1.5 Research Objectives . . . . .	7
1.6 Significance of the Study . . . . .	8
1.7 Supporting Theory . . . . .	9
1.7.1 Social Exchange Theory . . . . .	9
<b>2 Literature Review</b>	<b>11</b>
2.1 Shared Leadership and Project Success . . . . .	11
2.2 Shared Leadership and Team Building . . . . .	14
2.3 Team Building and Project Success . . . . .	16
2.4 Mediating Role of Team Building between Shared Leadership and Project Success . . . . .	17
2.5 Moderating Role of Project Complexity between Shared Leadership and Project Success . . . . .	20
2.6 Research Model . . . . .	23
2.7 Hypotheses of Study . . . . .	23

---

<b>3</b>	<b>Research Methodology</b>	<b>24</b>
3.1	Research Design . . . . .	24
3.1.1	Research Philosophy and Research Design . . . . .	25
3.1.2	Study Setting . . . . .	25
3.1.3	Unit of Analysis . . . . .	25
3.2	Time Horizon . . . . .	26
3.3	Population and Sampling . . . . .	26
3.3.1	Population . . . . .	26
3.3.2	Sample and Sampling Technique . . . . .	27
3.4	Sample Characteristics . . . . .	28
3.4.1	Gender . . . . .	28
3.4.2	Age . . . . .	29
3.4.3	Education . . . . .	29
3.4.4	Tenure/ Experience . . . . .	30
3.5	Instrumentation Measures . . . . .	31
3.5.1	Shared Leadership . . . . .	31
3.5.2	Project Success . . . . .	31
3.5.3	Project Complexity . . . . .	32
3.5.4	Team Building . . . . .	32
3.5.5	Statistical Tool . . . . .	33
3.6	Reliability Analysis of Dcales Used . . . . .	33
3.7	Data Analysis Techniques . . . . .	34
<b>4</b>	<b>Results</b>	<b>36</b>
4.1	Descriptive Statistics . . . . .	36
4.2	Correlation Analysis . . . . .	37
4.3	Regression Analysis . . . . .	38
4.3.1	Linear Regression Analysis . . . . .	38
4.4	Mediation Analysis . . . . .	41
4.5	Moderation Analysis . . . . .	42
4.6	Summary of Accepted/ Rejected Hypothesis . . . . .	43
<b>5</b>	<b>Discussion and Conclusion</b>	<b>44</b>
5.1	Discussion . . . . .	44
5.1.1	Hypothesis H1 . . . . .	45
5.1.2	Hypothesis H2 . . . . .	46
5.1.3	Hypothesis H3 . . . . .	48
5.1.4	Hypothesis H4: . . . . .	50
5.1.5	Hypothesis H5: . . . . .	51
5.2	Practical and Theoretical Implications . . . . .	52
5.3	Limitations and Future Research . . . . .	53
5.4	Conclusion . . . . .	54
	<b>Bibliography</b>	<b>55</b>



# List of Figures

2.1	Research Model of shared leadership impact on project success through Team Building: Moderation of Project Complexity . . . . .	23
4.1	Linear Regression . . . . .	39
4.2	Linear Regression . . . . .	40
4.3	Interaction Graph . . . . .	43

# List of Tables

3.1	Frequency by Gender . . . . .	28
3.2	Frequency by Age . . . . .	29
3.3	Frequency by Education . . . . .	30
3.4	Frequency by Experience . . . . .	30
3.5	Instruments . . . . .	32
3.6	Scale reliabilities . . . . .	34
4.1	Descriptive Statistics . . . . .	36
4.2	Correlation Analysis . . . . .	38
4.3	Regression Analysis . . . . .	38
4.4	Simple Regression . . . . .	39
4.5	Simple Regression . . . . .	40
4.6	Mediation Analysis . . . . .	41
4.7	Moderation Analysis . . . . .	42

# List of Abbreviations

<b>PBO</b>	Project Based Organization
<b>PC</b>	Project Complexity
<b>PS</b>	Project Success
<b>SL</b>	Shared Leadership
<b>TB</b>	Team Building

# Chapter 1

## Introduction

### 1.1 Background of the Study

Leadership has been known as fundamental and great domain in organizational behavior literature (Kocolowski, 2010). A leader is one who can analyze and evaluate the reality of other workers at workplace (Smircich & Morgan, 1982; Hoch, & Dulebohn, 2017). Superficially, it is harder for one single person in this uncertain era to become expert in major skills and abilities which are obligatory to proficiently lead organizations and team members today (O'Toole, Galbraith, & Lawler, 2002). O'Toole et al. (2002) acknowledged, "Frequently, organizations learn the hard way that no one individual can save a company from mediocre performance and no one individual, no matter how gifted a leader, can be 'right' all the time" (pg. 67).

In literature, shared leadership (SL) has been found as exclusive kind of leadership with in project based companies particularly and its impact a lot on the domain of healthcare and education (Hoch, & Dulebohn, 2017; Konu, & Viitanen, 2008; Steinert, McCleskey, 2018; Rice, 2006; Wallace, 2001) but still there is a room and pace of empirical study in project management literature (Sderlund, 2011; Turner & Mller, 2005; Tyssen et al., 2013).

O'Toole (2001) suggested SL as an institutional trait regardless of individual trait. People has changed now the trend of hierarchal leadership towards coworker leadership (Sally, 2002). Flatter organizations are now transforming their employees as self- sufficient, encouraging them to find leaders among them rather than being led by the top management or by any other leader hired on them. This is also to enhance the commitment and cause the desire to achieve the goals enthusiastically (Carson, Tesluk, & Marrone, 2007).

SL characterizes as reconceptualization of leadership at team level (Ensley et al., 2006; Mehra et al., 2006). This type of leadership is a collective and shared phenomenon among the team members (Conger & Pearce, 2003). SL has been defined as “an emergent and dynamic team phenomenon whereby leadership roles and influence are distributed among team members” (D’Innocenzo, Mathieu, & Kukenberger, 2016).

SL is gaining more attention among project-based organizations as team-based structures which is also a replacement of hierarchical structures (Sweeney, Clarke, & Higgs, 2019). Truly, many studies discovered the positive association of SL and team performance and they prove it through empirical studies that SL revenues higher team-level performance and paybacks more than hierarchical leadership structures (Carson, Tesluk, & Marrone, 2007; Sweeney, Clarke, & Higgs, 2019).

Literature demonstrated the positive outcomes of SL at workplace in form of Team performance, task satisfaction and team satisfaction (Serban, & Roberts, 2016) innovative behavior by Hoch (2013) but in current dissertation we will explore the effect of SL on success of project which is not been studied yet. The typical leadership style is top-down, leader-centric process and SL is a follower-centric process (Uhl-Bien, Marion, & McKelvey, 2007) which can emerge the traits and characteristics of leadership at bottom organizational level, hence the project become successful when it is owned by every person from top to bottom.

With compliance of literature it is presumed that SL has been an informal, comfortable and internal process (Morgeson, DeRue, & Karam, 2010). SL can be seen among team individual with specific leader roles within more than one personnel (D’Innocenzo, Mathieu, & Kukenberger, 2016). So, more leaders have autonomy



into one team with the ability to be influenced by others and influence other also proportionately can engender higher levels of team functioning in terms of respect and trust higher level of team performance (Day, Gronn, & Salas, 2004).

SL is a process in which members of project team try to accelerate the best leadership qualities among them. Moreover, SL emerges distribution and rotation of leadership within team members (Carson et al., 2007; Conger & Pearce, 2003; Mertens, Boen, & Franssen, 2017). Resultantly, the members with best styles of different leadership i.e. visionary, transactional, decision making, transformation, and empowerment shared their skills among members and lead the PS fully (Carson et al., 2007).

The literature on project success (PS) has largely ignored the impact of the project manager's leadership style on PS (Turner & Miller, 2005). Leadership is a way which has the ability to influence group members in order to achieve the objectives of project to make project successful (Wu, Cormican, & Chen, 2020).

Now a days, PS can be analyzed and measure through stakeholder satisfaction, product success, business and organization benefit, and team development (Atkinson, 1999; Baccarini, 1999). So, it is widely organized and analyzed that leadership style with in project contribute towards PS (Nixon, Harrington, & Parker, 2012). Therefore, we can claim that SL is positively and significantly associated to the PS.

Literature demonstrates that time, budget and quality is not the only aspects to measure the success of budget but the successful leadership is also need to be considered (Baccarini, 1999, p. 28; Schwalbe, 2004, pg. 109-10). As per Anantatmula (2010) successful leadership influences people around them and stimulates new ways of thinking with respect to accomplish goals and objectives in complex and complicates working environments. So, when the SL exist among project team members. There would be more than one person share their core leading skill among team members. Hence project will become successful.

Moreover, the members of project have high workload and stress of finding innovative solutions to emergent problems, to anticipate and respond to risks over which

they have little control, and to find a delicate middle ground between the, often contradictory, demands of different stakeholder groups.

Above mentioned argument supports that numerous leadership and shared phenomenon help the individual to execute team related responsibilities with accountability (Carson et al., 2007; Erez et al., 2002) and this execution of better team functioning increase chances of high PS

Additionally, in current study we mediate the relationship of SL and PS with team building. Whenever leadership would be a shared phenomenon between team members, the process of team building would automatically generate by team members which ultimately lead the project towards success. Project demands high level of collaboration among people within project teams to save the members from stressful conditions. The stress will not let the project members to complete tasks successfully and it also can cause a project failure (Pollack & Matous, 2019). To reduce the stress level proper communication and harmony must be developed with in team members (Baiden, Price, 2011). Literature declares that team building is positively associated with PS (Scott-Young & Samson, 2008; Pollack & Matous, 2019).

Most of the time, the project initiate with clear business goals and predefined objectives and vision (Hobbs and Miller, 2002). But in many contexts, due to uncertainty or the expectation of change can hinder the predefined criteria of project accomplishment. Therefore, shared task and project vision with in team can help to make project performance better (Carless & De Paola, 2000; Hsu et al., 2011; Lee et al., 2015). Hence, we can say that shared understanding facilitates the PS. So, it is suggested in current study that team building is a process which focused on team integration and coherence that is also an antecedent of PS.

Project complexity has been studied as moderator under this dissertation. Project complexity refers “as the property of a project which makes it difficult to understand, foresee and keep under control its overall behavior, even when given reasonably complete information about the project system. Its drivers are factors related to project size, project variety, project interdependence and project context.” (Vidal et al., 2011a, pg. 719)

Project complexity can be analyzed through social, technological, environmental and organizational aspects. So, whenever there is ambiguous ness and complex the project, it will lower the chances of PS. So, therefore, we can say the project complexity impact as a moderator between SL and PS.

## 1.2 Gap Analysis

Project management has large room for further research, as this domain is less rich as comparison to the other domains of management science (Shenhar & Dvir, 2007). Project leader is also remained unlucky to capture the interest of researchers and practitioners after its originating (Turner & Muller, 2005). SL structure has been proved more formal from last decade and this leadership style exist because many individuals were seen as leaders under specific roles (D’Innocenzo, Mathieu, & Kukenberger, 2016). Leadership is a vast and most important topic and should study as it is an understudied topic (Sotarauta, 2016). Despite the imperative nature of SL and its functioning and effectiveness into teams and organization, literature is lacking empirical studies of SL and its consequences (Drescher, Korsgaard, Welpe, Picot, & Wigand, 2014).

The team members want to coordinate their daily tasks to accomplish goals. Projects based teams are bound to many things i.e. size, composition, nature of the task, degree of interconnectedness of individual tasks, sophistication and behavior of team members within group dynamics, time frames and deadlines, leadership patterns. Therefore, in that case, team building method is very important which is applied under project teams (Dyer, 2015). The role of team building is very important in project organization based and should studied with leadership (Khan & Wajidi, 2019). Team building (TB) is very important to enhance motivation and productivity of project-based organization. Literature enunciated that tam building has a great role for employee communication and interaction to each other (Khan & Wajidi, 2019).

Gundersen, Hellesy, and Raeder (2012) call for more research to understand the relationship between leadership and team performance outcomes by using of mediators representing team processes. SL and its beneficial outcomes should be explored because SL works effectively in complex business environments (Burke et al., 2003; Clarke, 2018).

There is gap for these variables in context of Pakistan because the relationship between SL and PS with the mediating role of TB has not been studied before. This relationship will be useful to understand the consequences of SL in project-based organization. Recently, no study has done on the SL and its impact on PS. Therefore, current study would contribute significantly towards literature as well as the research study in Pakistan for organization.

### **1.3 Problem Statement**

SL has positively associated with the PS. It has been found as positive side of leadership. In 21st century, environment is uncertain and risk are high to meet the global criteria of PS. Moreover, projects normally operated with short time span and they are temporary in nature. Therefore, it is better to utilize multiple leading skills with in one project. Literature also elicit that under one project multiple members have diversified leading skills which can be shared with in team members that can lead the project towards positive outcomes.

Different studies explored various positive outcomes in form of job satisfaction and performance but there is dearth in project management literature. For short time span with high uncertainty and market competition how SL will behave is still unexplored. We argue that SL will lead to PS. When more than one leaders in a project would share their leading skills among team members can enhance the overall abilities and knowledge of the team and the process of team building will come into being, which leads the project towards success. Therefore, in this research SL is studied to understand how it can contribute to PS through the process of team building.

## 1.4 Research Questions

The present study intends to find answers for these questions:

### Research Question 1

Does the relationship exist between shared leadership and project success?

### Research Question 2

Does team building mediate the relationship between Shared leadership and project success ?

### Research Question 3

Does project complexity moderate the relationship between shared leadership and project success?

### Research Question 4

Does the relation occur between shared leadership and team building?

### Research Question 5

Does the relationship occur between team building and project success?

## 1.5 Research Objectives

Overall objectives of current study are to assess an integrative model to explore the association of SL and PS through mediation of team building. It will also find that how project complexity affects relationship of SL and PS as a moderating variable.

This study intends to consider following objectives:

- To investigate the relationship among SL and PS.
- To explore the relationship of team building as mediator among SL and PS.
- To reveal the moderating effect of project complexity on relationship of SL and PS.
- To investigate the relationship between shared leadership and team building.

- To investigate the relationship between team building and project success.

## 1.6 Significance of the Study

This dissertation contributes to the literature in numerous ways. First, it offers a new theoretical framework to understand the effects of SL on PS . Research on PS is vital because many businesses now improves their business portfolio. Today, many organizations understand the phenomenon of “don’t put all eggs into one basket” in this face pace global market. So, they invest into different projects and makes business portfolio in a way that failures of one project will not collaps e the whole business. Moreover, to handle and PS also has been very important aspect for the researchers and practitioners (Turner & Mller, 2005).

This study is subsidizing SL is extensively important to PS . As past studies elucidated that leadership is an imperative element for PS (Kocolowski, 2010). Drawing upon social exchange theory, current study expresses new knowledge by suggesting that SL is also one determinant of PS . Additionally, process of team building executes due to shared leadership. Secondly, by establishing the mediation of team building between SL and PS this study is donating about how SL will leads to the PS . Through novel mechanism of team building my results will show the impact of SL is a positive kind of leadership which leads projects towards success.

Finally, by examining the moderating effect of project complexity on the SL and PS , this study manifests its impact on the SL and PS . It is entirely new moderating effect on the SL and PS which predicts that when project become complicated and complexity entails the presence of “a large number of parts that interact in a non-simple way” (Simon, 1962) which leads the project to failure. So, when there is high level of project complexity exists, the relationship between SL and PS becomes weak. And in case of low project complexity the relationship between SL and PS would be strengthen.

## 1.7 Supporting Theory

Quite a few theoretical perspectives have been presented by different researchers such as

SL theory, Conservation of resource theory and Social Exchange Theory. But in this study underpinning theory is Social Exchange Theory (SET). SET is applicable in widely held variables like shared leadership & PS.

### 1.7.1 Social Exchange Theory

Social exchange theory specifies social change and stability as a process of negotiated exchanges between parties. Rotter (1966) states that individual perceive the notions of behaving negatively or positively from environment and also reciprocate same towards the environment. Social exchange theory explains these outcomes of behaving termed as reciprocity (Kim & Glomb, 2014). Reciprocation is a process in which each party contribute something against the benefit or hindrance, he receives. It is obvious that when organization demands positive behavior from employees, it also provides compensation and benefits to them (Bakker & Demerouti, 2007). Blau, (1964) defines that all actions are held in the process of exchanges in organization. Social exchange theory depicts that relationships evolve over time around trust, mutual commitments and loyalty. Thus, the concept of “exchange” initiated between parties. So, with the compliance of this theory, we can say that SL is a positive side of leadership which leads the project towards positive side. Hence, project will become successful. SL is about individual leading skills with in team and members who share their expertise within team. “SL offers a concept of leadership practice as a team-level phenomenon where behaviors are enacted by multiple individuals rather than solely by those at the top or by those in formal leadership roles” (pg. 305). SL is a process where organizations can benefit from diversity of thought, skills and abilities. Hence, Leaders can utilize their individual strengths (Miles & Watkins, 2007). So, social exchange theory describes that SL gives space to the employee and empowers them, resultantly, employee share back their skills, knowledge and abilities as reciprocation process. All members

acknowledged enough to lead the projects and project becomes successful. Additionally, exchange of ideas and thoughts with in team develops interaction and collaboration and strong bonding create in members which develops strong feelings of team building. This process generates harmony and coordination among team members.

Social exchange theory depicts that relationships evolve over time around trusting, mutual commitments and loyal, from here, the concept of exchange inaugurates in between parties. Hence, parties are enforced to abide by the rules because of interdependence upon each other. So, when projects are comprised with SL where members share leadership roles among team, this interaction generates collaboration and team building, and interdependence leads the project towards success (Molm, 2000, 2003).

Social exchange theory relies upon the interdependence where both parties get mutual benefits. In case of failure, both parties have to bear the loss eventually. Under this study, we investigated the project complexity as moderator upon relationship of SL and PS . We explored that whenever uncertainty is high and project is complex the relationship will be weaker of SL to PS .



# Chapter 2

## Literature Review

### 2.1 Shared Leadership and Project Success

Team administration has been found as ultimate benefit to adopt SL (SL ) (D’Innocenzo, Mathieu, & Kukenberger, 2016). Literature also supports view that SL positively influence for yielding higher team-level performance as compare to hierarchical leadership structures (Carson, Tesluk, & Marrone, 2007; Perry, Pearce, & Sims, 1999).

The project becomes successful when teams are self-managed and empowered enough alike flatter organizational structure which has emerge the importance of SL within teams (Manz & Sims, 1987; Mohrman, Cohen, & Mohrman, 1995). In 20th century, corporate sectors focused mostly on dominated and central form leadership. Hence, such type of leaders has strong impact in organization as well as, they change the behavioral qualities i.e. consideration the initiation of structure, and inspiration. But in present era, leadership consider as a broader perspective where single hierarchal leader plays only a part (Bass & Bass, 2008; Day & Harrison, 2007; Mehra, Smith, Dixon, & Robertson, 2006).

Formal leader has formally designation in organizational hierarchy and formal leader provides more informed and broader picture of leadership process (Finkelstein, Hambrick, & Cannella, 2009; Hambrick, 2007). On the other hand, informal leaders are those team members which contribute

Significantly in team or unit-level effectiveness (Friedrich, Vessey, Schuelke, Ruark, & Mumford, 2009; Klein, Ziegert, Knight, & Xiao, 2006; Wu, Cormican, & Chen, 2020)

A thought-provoking debate on leadership and the success and failure of project has been a subject of much research in project management literature (Nixon, Harrington, & Parker, 2012; Pinto and slevin, 1988a).

In the era of 1980s and 1990s, PS factor has been measured through critical success factors that are time, cost, and functionality improvement. But in present era the PS is growingly measure by stakeholder satisfaction, product success, business and organization benefit and team development (Miller, 2019; Baccarini, 1999). So, multiple problems and tasks resolution is difficult for one leader or individual to manage all the things at one time. Therefore, projects are adopting SL which is very beneficial when tasks are so complex that they cannot be led effectively by a single individual (D’Innocenzo, Mathieu, & Kukenberger, 2016). So, how SL can be a source of PS can be understand through team member interactions (DeRue, 2011), leadership roles, time, and distributions (Contractor et al., 2012) in understanding shared leadership.

SL is defined as a “simultaneous, ongoing, mutual influence process within a team that is characterized by serial emergence’ of official as well as unofficial leaders” (Pearce, 2004, p. 48). SL is a process of distribution and rotation of leadership among project members with their most relevant knowledge and skills (Carson et al., 2007; Conger and Pearce, 2003; Perry et al., 1999). In project there are temporary teams comes in conjunction to complete a given task or project. So, in that case, enactment and effective use of skills and knowledge across multiple team members would help to lead the project towards success (Carson et al., 2007). Moreover, D’Innocenzo, Mathieu, & Kukenberger (2016) describes that SL is particularly predict higher levels of member performance in complex decision making, creative and flexible work conditions. SL has positive and constructive impact on employee attitudes, behavior, cognitions, and performance (Wassenaar and Pearce, 2012).

Within teams SL provides autonomy to be empowered to take complex decision. In projects, all members have a stake with the PS . And when leadership would be a shared phenomenon, everyone would materialize its skills and abilities, knowledge to conduct the PS . For example, in project there might be individual possess with different leadership styles. Hence, every member would try to lead the project with the abilities and knowledge, he has. The autonomy an individual has in team will help him to conceal his hidden skills and abilities too. This empowerment will lead the project towards success because all members equally, actively involved in developing the vision for their project (Rogers, 2019).

Underpinning theory SET Social Exchange Theory also exemplifies the process of exchange sin which one party share good deeds with other (Gergen, 1969; Gouldner, 1960). Resources are exchanged through a process of reciprocation in relationship also. Social exchange theory is extensively used conceptual framework in organizational behavior literature from past many decades (Cropanzano, Anthony, Daniels, & Hall, 2017).

Social exchange theory define the process of exchange with in relationship into 3 ways. With compliance of theory, we propose the first way is the SL process and its influence on the team members. Second, with high autonomy and strong trust upon each other they will have positive attitude and behavior towards the project. Hence, the team member's would work diligently as per their success is also associated with the PS. And this becomes a relationship among project and team members which leads the project towards success.

“Any interaction between individuals is an exchange of resources” (Homans 1958, p. 597). According to SET (social exchange theory) when there is any transaction occur in form of shared leadership, the resources team members give back to other leadership is more much valuable for accumulatively and other members also reciprocate in best way by providing something better in return. Hence, all members share their knowledge and skills in best manner towards project to get success, on the other hand for the mutual benefit of both parties. Therefore, based on the above argument, I hypothesized that:

**Hypothesis 1:** Shared leadership is positively related to the Project Success.

## 2.2 Shared Leadership and Team Building

SL is positively associated to team related outcomes or performance (Barnett, & Weidenfeller, 2016; Carson et al., 2007; Hoch & Kozlowski, 2014; Small & Rentsch, 2010). What the actually should be share is need of the literature. Morgeson et al. (2010) describe many functions of leadership in which he identified 15 functions of leadership.

These leadership functions are composing the team, defining project mission, identifying goals, planning work, training team members, interpreting events the team encounters, getting feedback, investigating team performance, setting team boundaries, motivating and urging team members to perform well, functioning the team's work, solving problems, managing resources, cheering team self-management, and supporting the social climate.

Although Morgeson et al. (2010) described useful functions of leadership and under this dissertation we also enunciated the important element of SL is team building. All factors which shared among team members make the team bonding high and is necessary to create team building (Neck, Bligh, Pearce, & Kohles, 2006).

Literature demonstrated that SL is very powerful and influencing form of leadership at team level where we found individual level constructs to the team development such as SL at the group or team level (Neck, Bligh, Pearce, & Kohles, 2006).

Moreover, an individual becomes loyal to the project if he obtains trust, potency, and commitment by team members as these are the crucial intermediary concepts which influence the behavior of an individual. Therefore, Neck et al. (2006) explored that we can say that each person within team has independent work attitude i.e. trust, potency, and commitment would make a more homogenous group where team members will share the common attitudes and work beliefs which ultimately develop TB process.

In shared leadership, we propose that an individual share is competencies and skills to get the best for the project. Past study says that an individual an individual

always direct him through self-management process to motivate him or herself for him or her own performance (Manz, 1986; Manz and Neck, 1999).

So, when an individual set strategy for his own performance, at self-leadership stage he must involve himself in positive ways of thinking, self-analysis which ultimately enhanced the overall team performance (Manz and Neck, 1999). In turn, Neck et al. (2006) fosters that the thinking pattern of self-leadership would be opportunistic that entails the qualities in individual to viewing the obstacles in form of challenges, opportunities, and constructive ways.

Hence, we can that in shared leadership, the individual would freely share his core competencies and skills among project team members and tries his level best to achieve the goal. This is why, because literature supports that an individual has self-management process and when it comes into a team level, the autonomy to share and present oneself in front of others with confidence emerge positive association among team members.

Additionally, increased level of self-leadership also increased the trust between team members. The belief of team members that we will make this PS ultimately leads the project towards team commitment. Moreover, social exchange theory (SET) represents the number of transaction increases among parties will also increases trust and bonding with the same degree. Hence, with in SL members share their personal values and communicate others in an informal work environment as well professionally and formally because they understand all of members lies at equal stage and thus the process of sharing increase trust and create team building. Moreover, all members feel themselves relax in sharing and the job and workplace satisfaction among them also increases which develop the feel of we are one in them (Choi, Kim, & Kang, 2017).

Houston and Gassenheimer (1987) annotate that “reciprocation occurs, a pattern of behavior [and trust] begins to be established” (p. 11). So along with SET, we found trust ripen and team members obligate to team commitment and to the exchange relationship with in team (Blau 1964; Homans 1959). Mutual commitment is an important part of functional social exchange because it ensures that team members will put forth the effort and make the investments necessary to produce

mutually desirable outcomes (Dwyer, Schurr, and Oh 1987; Ganesan 1994). And these mutually desirable outcomes becomes a major phenomenon for team building. Therefore, with previous studies (D’Innocenzo, Mathieu, & Kukenberger, 2016; Choi, Kim, & Kang, 2017; Barnett, & Weidenfeller, 2016) and supported results we propose the acceptance of our presented hypothesis.

**Hypothesis 2:** Shared leadership is positively associated to team building

## 2.3 Team Building and Project Success

Researches throw least light on the impact of team on project outcomes. Moreover, practitioner and researches less likely focused the team performance (LePine et al., 2008). Team building has been found as positively associated with PS (Bubshait and Farooq, 1999; Salas et al., 1999). The four main team-building elements of team building i.e. goal-setting, interpersonal processes, role-clarification, and problem-solving can lead to improved performance through modification of attitudes, values, problem-solving techniques, and interpersonal processes (LePine et al., 2008).

For example, the team member’s bonding would be mingled with trust, empowerment, autonomy, power to speak, authority to take decision. Hence, the team members would try to reveal and materialize their core skills, abilities and knowledge to lead the project towards success. Moreover, the members have the same goals and same thinking, attitude to achieve the PS will increase team coherence. And there will be less conflict emerge among members as per their goal is same and trust also increase better interpersonal relationship will make the PS.

Literature also support that team building has positive association with PS (Bubshait & Farooq, 1999; Salas, Rozell, Mullen, & Driskell, 1999). According to the above-mentioned statement, we can say that team building practices have more possibilities and chances to lead the argument of team-building practices owe the potential to lead the greater PS ’ (Somech, 2006; Jacques et al., 2007).

Hoegl and Parboteeah (2003) also demonstrated in his study that with the specific, clear, and accepted goals among team members have a positive correlation with PS by directing attention, mobilizing effort, increasing persistence, and motivating strategy development.

In this dissertation we also conceptualize that team building is positively associated to PS. Team building is a process which is a useful intervention among projects to lead the project towards success (Schein, 1969, 1999; Noe, 2002)). Team building is used to improve interpersonal relations and social interactions, so the members of team motivate enough to achieve their goals and accomplish their task (Payne, 2001).

Team building create the process of connectedness and people become emotionally attach to each other as well they work together to get the end result best of all which is ultimately a successful project. Team building is a useful intervention which is helpful in developing team trust and confidence through open communication which enhance team functioning. The meta-analysis findings also support that team building pays a key role in team effectiveness and better performance (Klein et al., 2009). So, with the groundwork of literature and past studies, we also hypothesized in current dissertation that team building is positively and significantly associated with PS. Therefore, it is hypothesized on above mentioned arguments that:

**Hypothesis 3:** Team building is positively related to project success.

## 2.4 Mediating Role of Team Building between Shared Leadership and Project Success

When multiple members within team with diverse needs and expertise collaborate with each other to transform the work units into the set of achievable goals and objectives. Individual contributors also merge together and management support the objectives of the project (Bubshait, & Farooq, 1999). In projects, specialized tasks of a multidisciplinary nature are brought together which are performed

or accomplished by a temporary based team or group (Cohen and Bailey, 1997). The impermanence nature of project compliance conflicting perspectives and loyalties of team members towards projects (Ammeter, & Dukerich, 2002). Project managers or leaders tries to express the importance of productive project team and fit in the role of team building activities in facilitating project performance (Bubshait, & Farooq, 1999).

The current study is designed to analyze the role of team-building as a mediator, which plays vital part between SL and PS . The study contributes to the literature by proposing SL team enhances team building interventions to reflect PS . It is important to understand the relationship, and this relationship serve as a significance contribution in theoretical background. In addition, seeing how the impact comes about can give down to earth direction to extend based associations that need to procure the impacts of SL to the furthest reaches.

Team building is a fundamental module in human resource practices with in project based organization (Huemann et al., 2007; Turner et al., 2008). Team building has been defined as “the formal and informal team-level interventions that focus on improving social relations and clarifying roles as well as solving task and interpersonal problems that affect team functioning” (Klein et al., 2009, p. 3).

Four team building practices elaborate the existence of team building element in project, are goal-definition, creating interpersonal relations, defining roles, and employing related issues (Klein et al., 2009; Salas et al., 1999). Leadership should be shared among members; hence members get freedom to explore, discuss, and decision-making autonomy to resolve the problems and tasks. An effective and vital shared role of leadership required within team to circulate information within the team in the project, so that realistic decisions can be made (McDonough, 2000).

SL encompass multiple leaders and they fulfill different roles and tasks of the project. So, such team would be empowered and motivated to achieve desirable goals with enthusiasm, energy and harmony rather than concentrating on single leader contributions (Burke et al., 2006; Sohmen, 2013). The team-building has not been clearly described and explained in literature (LePine et al., 2008). According to the study “Part of the problem lies in the ambiguity of what precisely is



team-building and what studies should be included in an effort to integrate the effect of team-building on performance” (Salas et al., 1999, p. 313). Team-building has been found to have significant impact PS (Bubshait and Farooq, 1999; Salas et al., 1999).

The four components of team building goal-setting, interpersonal processes, role-clarification, and problem-solving has ability to change the behavior, attitude and values of employee which leads the employee performance towards success (LePine et al., 2008). A study by Hoegl and Parboteeah (2003) demonstrates that by having the specific, clear, and accepted goals, correlation with PS becomes higher (Hoegl and Parboteeah, 2003). Our expectation is that team-building practices do impact PS also support by previous research (Aga, Noorderhaven, & Vallejo, 2016).

Katz and Kahn (1978) has articulated that members within team in SL bring more resources to the task, share more information, and experience higher project commitment. Hence, overall team members transpire to achieve PS . Moreover, two-level influencing i.e. one individual can also influence other team members as well as can be influenced by someone arise higher team bonding and respect and trust which leads the project towards success (Aga, Noorderhaven, & Vallejo, 2016; Day, Gronn, & Salas, 2004; Marks, Mathieu, & Zaccaro, 2001). Furthermore, Yang et al. (2010) enunciated that leadership brings result of PS by mechanized through the team-building practices.

Team building is necessarily to lead project towards success and it is happening when the goals are mutual for team members and approaches to goal achievements Eisenbeiss et al. (2008). Moreover, team members adhere high quality standards for PS through the dimensions of team-building. Additionally, Braun et al. (2013) enunciated that success of project is based on the trustful interaction and communication between team members.

Leadership is also a great module which helps the members to get PS because workplace environment helpPS team members to perceive their environment supportive which ultimately determines their level of motivation, energy, and efforts in the course of project implementation Kissi et al. (2013). Team building plays

a role of intervention between leadership and PS (Aga, Noorderhaven, & Vallejo, 2016). SL helps to emerge strong bonding within team members as per literature to given others also the power of leadership among teams help in better execution of team functioning and thereby higher performance Carson et al., 2007; Erez et al., 2002; Pearce & Sims, 2002). Team members would then appreciate the project environment and feel committed and motivated towards the accomplishment of the project goal. On the basis of the arguments discussed above, we propose that SL helps to enhance team-building practices, which in turn would positively influence PS . Therefore, it is hypothesized on above mentioned arguments that

**Hypothesis 4:** Team Building significantly mediates the relationship between shared leadership and project success.

## 2.5 Moderating Role of Project Complexity between Shared Leadership and Project Success

Under this dissertation we hypothesized that Project complexity (PC) plays vital role in moderating the relationship of SL and PS . The higher project complexity will less foster the SL to PS . But in case of lower project complexity the SL is more likely move to the PS . In project, complexity relates to dynamic elements and interaction of these elements across the broad categories of technical, organizational and environmental domains (Botchkarev & Finnigan, 2015; Kardes et al., 2013).

PC has been identified through multiple methods (He et al., 2015; Lu et al., 2015; Vidal et al., 2011a, b; Xia and Chan, 2012) but there is still room to discover the moderating effect of project complexity impact on PS . Complexity is a vague phenomenon which is very difficult to quantify (Corning 1998; Luo, He, Xie, Yang, & Wu, 2016). Compliance with complexity term, project complexity is considered as the interlinkage of multiple aspect of project with structural, dynamic, and uncertain premises (Mihm et al., 2003; Xia & Chan, 2012).

Due to high project complexity, it is hard to reach PS, as the project complexity increase cost overruns, and delays schedule with lower performance (Kennedy et al., 2011; Thomas & Mengel, 2008). As shown in the literature review of project complexity, each scholar has different classification and perspective on project complexity but still there is need to explore project complexity towards success which is also hinder the performance of team members (He et al., 2012; Hu et al., 2012; Maylor et al., 2008; Remington & Pollack, 2007; Vidal et al., 2011).

Project complexity is actually “the property of a project which makes it difficult to understand, foresee and keep under control its overall behavior, even when given reasonably complete information about the project system. Its drivers are factors related to project size, project variety, project interdependence and project context.”

The word project complexity comprises two major factors i.e. project difficulty (how hard the project is to achieve project objectives) and project risks (uncertainties). Project complexity is a root cause of uncertainty and unpredictability which are the source of project failure (Vidal, & Marle, 2008; Parsons-Hann and al., 2005). Project complexity generates difficulty for the employees to work with in team. So, although the employees have shared leadership, the difficulty with in project communication or networking can be as source of project complexity which require extra efforts and hard work of team members. Project complexity, project risks, project uncertainty and project performance and their links are not established well in previous studies (Vidal, & Marle, 2008).

Literature demonstrates that reason for the project complexity could be person's or project team's experiences, resource availability, stakeholder consideration, internal project team interfaces, ambiguity and uncertainty, interdependency, non-linearity, unique local conditions, autonomy, emergent behaviors and unfixed boundaries or many other aspect which are unable to handle by project team members can be a source or project complexity (Dao, Kermanshachi, Shane, Anderson, & Hare, 2016).

Under this dissertation we propose the project complexity as moderator on the SL to PS relationship. Compliance with above mentioned definition of complexity

we argue that team members have autonomy to take decision even in uncertain environment. So when there is uncertainty or difficulty occur in project, every member want to play his part and in case of failure they will blame others. Hence, we can say the project complexity weaken the relationship of SL to PS . In SL more than one members have skills abilities and autonomy. So, when there is high project complexity, they most often forget their core goal of project. Moreover, ambiguity and difficulty also enhance the connectivity or interrelated issues among members (Bakhshi, Ireland, & Gorod, 2016). Resultantly project less likely leads to the success.

Complex projects comprise on multiple factors but sometime when team members are aware enough to deal the uncertainty and difficulties, they become able to deal complexity by understanding their past patterns of success and failure while focusing on project complexity factors. But in case of most crisis and disaster it is difficult to deal complexity towards success (Snowden and Boone, 2007).

In case of project complexity, the member through integration, coordination or proper communication and control can reduce the element of failure (Baccarini, 1996), but in case of member's interpersonal conflicts the project would become more complex to deal (Turner & Cochrane, 1993). So, we can say in presence of high project complexity it is hard for the SL to lead the PS.

High uncertainty, risk, difficulty make project goal vague (Bakhshi, Ireland, & Gorod, 2016). Moreover, autonomy also has dark side which demonstrates that interpersonal conflict increase among employee due to SL and power of decision-making and autonomy (Lu, Brockner, Vardi, & Weitz, 2017). Thus, every employee wants to take decision on his own and demand from others to obey him. So, we can say that in presence of high project complexity the project most often not leads to PS . Therefore, it is hypothesized on above mentioned arguments that:

**Hypothesis 5:** Project complexity moderates the relationship between shared leadership and project success; such that SL and PS relationship becomes weaker when project complexity will high.

## 2.6 Research Model

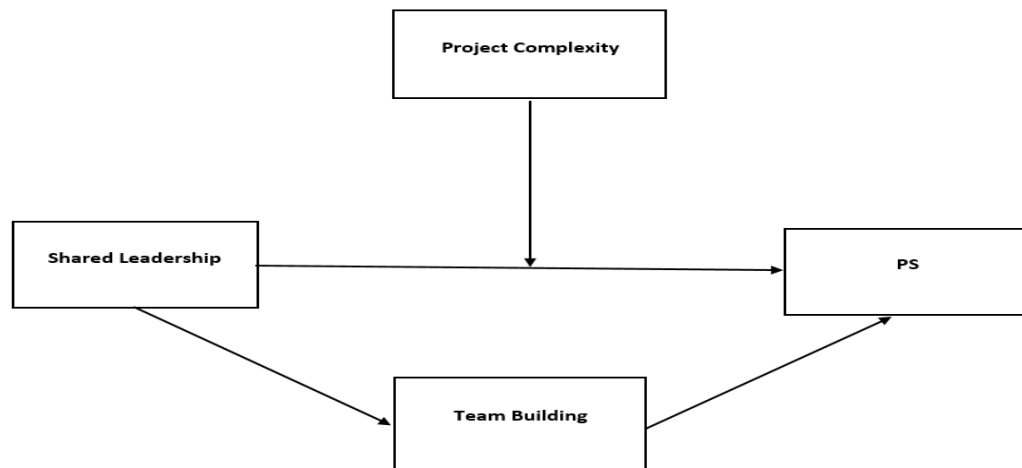


FIGURE 2.1: Research Model of shared leadership impact on project success through Team Building: Moderation of Project Complexity

## 2.7 Hypotheses of Study

**H1:** Shared leadership is positively related to project success.

**H2:** Shared leadership is positively related to team building.

**H3:** Team building is positively related to project success.

**H4:** Team building significantly mediates the relationship between shared leadership and project success.

**H5:** Project Complexity moderates the relationship between SL and PS ; such that SL and PS relationship become weaker in high project complexity

# Chapter 3

## Research Methodology

The following segment comprises different approaches and procedures which has been applied to acquire reliable outcomes under this dissertation. Multiple processes that are functioned in this study regarding type of study is research philosophy, unit of analysis, population, sample, sampling technique, sample characteristics, instrumentation, statistical tools, reliability scales analysis and data analysis of all the variables and items.

### 3.1 Research Design

The research design reconnoiters specific process about data gathering and data analysis

#### **Type of Study**

Precisely current research throws spotlight on the influence of the SL over PS for that teambuilding has been accompanied as intervention. The population was targeted is project based organizations of Pakistan to acquire genuine data and realistic results. 450 questionnaires were distributed among team members but the response rate was 282 which are the truly filled questionnaires. The sample is teams and members of teams individually from different project based

organization of Islamabad and Rawalpindi. Data is aggregated through a self-administered survey of paper-and-pencil. The end result will supposed to predict the generalizability of the whole population of Pakistan.

### **3.1.1 Research Philosophy and Research Design**

Data collection instrument influence the adaptation of the particular philosophy related to research. Current study will conduct survey according to hypothetical deductive research method which is based on the philosophy of determinism to find the reality by utilizing current method under which aforementioned research and prevailing theories were utilized to validate and support predicted hypothesis. Moreover, hypothetical deductive method is a scientific method which is best suited for current study. It takes analytical focus on findings, which is yet to be explored.

There are two portions of the hypothetical deductive scientific method i.e., hypothesis and tested outcomes inferred from hypothesis. Some standards are meet to properly investigate the data originality. Quantitative method is useful for approaching a large scale of population usually in research. To examine the correlation among the variables we used quantitative research method to accumulate quality data.

### **3.1.2 Study Setting**

Variables tangled in current study are not manipulated. The study has been held between the members of teams within project-based organization by approaching to them in their job setting and to make them able to fill questionnaire in ordinary work environment.

### **3.1.3 Unit of Analysis**

One of the crucial elements of research is to explore about unit of analysis. The unit of analysis elucidates that which characteristics are required to be evaluate in

current study. The unit of analysis can be an individual and at broad level a group, an organization and culture can also be the unit of analysis. Although, we are gathering data from team members therefore the unit of analysis in current study is individual. The SL in project-based organizations gives way to team building which as a result becomes the cause of PS . Therefore, the data has been collected from teams working in project-based organizations.

## **3.2 Time Horizon**

The collection of data was completed within 2 months. Data has been collected with cross sectional method. Saunders and Lewis (2012) identifies two ways for conducting research, one is longitudinal and other is Cross-sectional. Longitudinal data collection is a type of study in which has boundless time and the Cross-sectional time has specific time period. We have used cross sectional method because of lack of the time duration.

## **3.3 Population and Sampling**

### **3.3.1 Population**

Employees are the population of current study and those employees are based on different organizations of Pakistan. Leadership is considered something core element for a project in many project based organizations. Therefore, existing research demonstrate the impact of shared skills and knowledge of team members to understand the impact and importance of SL in attaining PS. Current dissertation is very suitable for project based companies operating in Pakistan. As per literature, in power distance and bossy culture employees feel reluctant and confusion while share any idea or information with leader or project manager. So, through current dissertation it had been explored that with sharing skills and knowledge team members can positively respond to the project challenges and try hard to achieve project goals. It is also important because the company have to hire the



employees from the area of Pakistan so, they need to opt the sharing system in project to help their employee and project to gain success. . Every project has its own deadlines, processes, budgets and objectives to achieve the goals. Projects are of different enterprises i.e. NGOs project, business projects or IT projects. The members of team try enough together to achieve the goals with in allocated budget and time. Population exploited in this study was embrace project team members who SL working under public sector in Islamabad and Rawalpindi project-based organizations. These institutes of projects are based on national and international level including share leadership and team building among team members, running many projects in the field of education, healthcare, construction, banks, restaurants, social services, housing societies etc.

### **3.3.2 Sample and Sampling Technique**

Sample is commonly used procedure for data collection and the characteristic of population. Sampling are of two types, probability sampling and non-probability sampling. Probability sampling is about every opinion has equal chances to be chosen as sample. Non-probability sampling is pre-decided that which observation would represent as sample of whole population. Both are equally utilized in research and have their advantages as well as disadvantages. For the present research, convenience sampling has used and it is part of the non-probability sampling. Population of project-based organizations in Pakistan is vague. Therefore, convenience sampling is the most suitable way for data collection because this technique is used to randomly collect data from project base organizations of Pakistan. Researchers explore it also as the method of sampling which represent the true picture of whole population, under this study in explaining the influence of SL on PS through team building and moderation of project complexity. For the present study, only project-based organizations of Rawalpindi and Islamabad of Pakistan were approached. Multiple project-based organizations were being approached and the data was collected. The projects team members reported the data on independent variable (i.e., shared leadership) and mediation (i.e., team building) dependent variable (i.e., PS ) and moderating variable (i.e., project complexity.

However, support staff was excluded from this group. Self-administered questionnaires were distributed among employees onto their work setting. Through cover letter, respondents were informed that their provided responses are secured and only used for academic purposes. Almost 450 questionnaires were distributed to project teams for data collection. However, 282 complete responses were actually received.

### 3.4 Sample Characteristics

For the current research, two questionnaires were designed in 5 sections including demographics. Team members will fill the whole questionnaire of shared leadership, team building, project complexity and PS . We adopted control variables in current study through literature are Age, Gender, qualification and employees dynamic experience in the project-based organizations.

Sample characteristics are explained as follows:

#### 3.4.1 Gender

We have separated collected data from the gender in order to preserve the data quality. So, gender is considered as important demographical element which cannot be ignored in any organizational behavior research. Research articulated that people behavior and attitudes varies across the gender.

In Pakistan, at workplace male members have greater ratio in comparison of females. Table 3.2 depicts ratio of male and female respondents.

TABLE 3.1: Frequency by Gender

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Male	<b>156</b>	<b>55.3</b>
Female	<b>126</b>	<b>44.7</b>
<b>Total</b>	<b>282</b>	<b>100</b>

In this study, it has been tried to make sure the equality but still it has been observed that ratio of male members are more than females. Table shows that 55.3% of the respondents were male and 44.7% respondents were female.

### 3.4.2 Age

Age is as one of the meaningful demographics. To remove the impact for employee hesitation as most of time females do reluctant to openly mention her age. So, we range the basis of age to release openly.

TABLE 3.2: Frequency by Age

Age	Frequency	Percent
18-25	<b>173</b>	<b>61.3</b>
26-33	<b>67</b>	<b>23.8</b>
34-41	<b>9</b>	<b>3.2</b>
42-49	<b>33</b>	<b>11.7</b>
<b>Total</b>	<b>282</b>	<b>100</b>

Table 3.2, demonstrating the alignment of the sample with reference to age groups. 61.3% and 23.8% of respondents were having age between the ranges of 18-25 years and 26-33 years. 11.7% respondents were having age between the ranges of 42 - 49 years, while only 3.2% respondents were having age between the ranges of 34 - 41 years. In this study, most of the respondents lie in the ranges of 18-25 and 26 - 33 years of age.

### 3.4.3 Education

We have controlled the level of qualification under this study. Education is unique module which is not only imperative at national but to compete internationally is also significant. It is fundamental element to analyze in research. It was very important in this research to control the education because normally people having broad exposure with the vast knowledge of their educational level. Employee become able to put their all skills, knowledge and abilities into the project which are compatible with their qualification level. Through past literature, it is explored

that underqualified employees may struggle hard to complete project on-time and within budget (Erdogan & Bauer, 2009).

TABLE 3.3: Frequency by Education

<b>Qualification</b>	<b>Frequency</b>	<b>Percent</b>
Matric	<b>12</b>	<b>4.3</b>
Bachelors	<b>139</b>	<b>49.3</b>
Masters	<b>66</b>	<b>23.4</b>
M.Phil.	<b>65</b>	<b>23</b>
<b>Total</b>	<b>282</b>	<b>100</b>

Table 3.3 represents the qualification of the respondents, 3.6% were Matric qualified, 26.8% were Bachelors qualified, 57.6% were Masters qualified, and 23% were MS/M. Phil qualified. The large number of responded were having a Bachelors degree.

#### 3.4.4 Tenure/ Experience

To collect information regarding respondents experience or tenure, different ranges of time period in yearly basis were provided. Hence, every respondent can easily indicate the specific tenure of his/her experience in the relevant field of projects.

TABLE 3.4: Frequency by Experience

<b>Experience</b>	<b>Frequency</b>	<b>Percent</b>
5 and less	<b>205</b>	<b>72.7</b>
6-13 years	<b>38</b>	<b>13.5</b>
14-21 years	<b>16</b>	<b>5.7</b>
30 & above years	<b>23</b>	<b>8.2</b>
<b>Total</b>	<b>282</b>	<b>100</b>

Table 3.4 represent that 72.7% of the persons were having job expertise ranging from (0 - 5) years. 13.5% of persons were having job expertise ranging from (6 - 13) years, 8.2 % of persons were having job expertise ranging from (30 & above) years and 5.7% of respondents were having job expertise ranging from (14 - 21) years. Most of the respondents were lying in the work expertise of (5 and less) years.

## 3.5 Instrumentation Measures

This study consists of closed ended questionnaire obtained from different sources and has been used for measuring four variables. Questionnaires were administered to the numerous teams of the project-based organization. Participants filled the questionnaires items of five sections in this study. Demographic variables are gender, age, qualification and experience. Shared leadership, Team Building, Project Complexity and PS are main variables of the research. The responses were nominated using 5 point-Likert scale where 1 signifies strongly disagree and 5 represents strongly agree, otherwise stated. Questionnaires also covered section of demographic i.e. Gender, Age, Qualification and Experience. 450 questionnaires were distributed in total but only 303 were acknowledged. But the actual numbers of questionnaires used for the analysis of data for demonstrating the results were 282. The discarded questionnaires out of 303 questionnaires were those which were not having the complete information or many of the questions were unfilled in those questionnaires hence making them not appropriate for the study.

### 3.5.1 Shared Leadership

SL is the variable of interest has been acquired in this study. It was measured through Multi-Factor Questionnaire in which SL was having 12 items. Its scale was developed by Stagnaro and Piotrowski in (2013). The items were measured on ve-point Likert-scale ranging between strongly disagree (1) to strongly agree (5). The items are When faced with a specific problem, I consult with my subordinates, Before making a final decision, I give serious consideration to what my subordinates have to say and I ask subordinates for their suggestions concerning how to carry out assignments or specific tasks.

### 3.5.2 Project Success

Dependent variable PS was measured by the 14 items questionnaire developed by Aga and Vallejo (2016) paper published in the international journal of project

management. The sample item is The project was completed on time, The project was completed according to the budget allocated and The outcomes of the project are used by its intended end users. These items are measured through 5-point Likert scales ranging between strongly disagree (1) to strongly agree (5).

### 3.5.3 Project Complexity

Moderator Project Complexity is used in this study. The scale is adopted by (Bjorvatn and Wald, 2018) has 3 items, which was based on (Geraldi et al., 2011), who described complexity has used in understudy. The responses will be obtained through 5-point Likert scales ranging between strongly disagree (1) to strongly agree (5). The sample item is To me, the project had a high degree of complexity concerning content.

### 3.5.4 Team Building

Team building act as mediator in this dissertation. And it was measured by using the seventeen items questionnaire developed by Aga and Vallejo in (2016) from the international journal of project management. The item is Setting project goals on a participatory basis by the team, Involving project team members in action planning to identify ways to achieve project goals and Making the basic goals of the project clear to the project team. A 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5) was used to measure these items.

TABLE 3.5: Instruments

<b>Variables</b>	<b>Source</b>	<b>Items</b>
Shared Leadership (IV)	Stagnaro and Piotrowski (2013)	<b>12</b>
Team Building (Med)	Aga and Vallejo (2016)	<b>17</b>
Project Success (DV 1)	Aga and Vallejo (2016)	<b>14</b>
Project Complexity (Mod)	Bjorvatn and Wald (2018)	<b>3</b>

### 3.5.5 Statistical Tool

Firstly, single linear Regression was carried out in order to study the get results of casual relationship between the Independent variable Shared Leadership and Dependent variable PS one by one. Regression analysis run in order to get the impact on multiple factors on the dependent variable under the study. Regression analysis will declare the previous study apropos variables still supporting the acceptance or rejection of the proposed hypothesis or not.

Afterwards, for further analysis three steps of Preacher and Hayes (2004) were run to get mediation and moderation results. In these three steps , first we have to put our dependent variable i-e PS in the outcome column, then place independent variable i-e SL in the IV column and after that we have to put all the demographics (Gender, Age, Experience, Qualification) in covariant column. Along with all these steps , we have to choose our Model number, as we will perform both mediation and moderation through Preacher and Hayes. Therefore, we will separately perform the analysis both for mediation and moderation by selecting model 1 for moderation and model 4 for mediation respectively.

## 3.6 Reliability Analysis of Dcales Used

Reliability is about having consistent and the same result again and again when item is tested over a number of time for scale. Reliability of scale represents the ability of the scale instrument to give consistent results on being tested for number of times. In current research, we hand-pick value of Cronbach alpha to get an idea about reliability of our scale items. This Cronbach alpha value shapes internal reliability of the variables used in current research. The value of Cronbach alpha expresses, if variables have a link between them or not. Along with that, it also measures the single construct. Cronbach alpha have a range of values from 0 to 1. The higher value depicts the higher reliability of the scale to measure the construct. Value of alpha above 0.7 is measured to be reliable and standardized. On the other hand, below 0.7 value would measure to be less reliable in determining the selected set of construct.

Under the defined table 3.6, the values of Cronbach alpha has shown about all scales:

TABLE 3.6: Scale reliabilities

Variables	Cronbachs Alpha	Items
<b>Shared Leadership</b>	<b>0.842</b>	<b>12</b>
<b>Team Building</b>	<b>0.907</b>	<b>17</b>
<b>Project Success</b>	<b>0.89</b>	<b>9</b>
<b>Project Complexity</b>	<b>0.784</b>	<b>3</b>

Cronbach alpha values are above than threshold point which is 0.7. So, it is professed that these scales are highly reliable to be used in this study as per they have higher values of .8.

### 3.7 Data Analysis Techniques

After collecting the data, version 20 of SPS S software was employed with a view to study the data. The following steps are tangled throughout analyzing the data;

1. In first step, questionnaires were picked which were truly filled and relevant in respect of responses.
2. After the relevant questionnaires selection, variables and their interrelated data were coded for the analysis in SPS S.
3. Frequency tables has included for clarifying the characteristics of sample.
4. For descriptive statistics, numerical values of the variables operationalized.
5. The reliability test was piloted using Cronbach Alpha.
6. Correlation analysis acquired for the purpose to identify either there is any significant and correlated values occur among the variables or not.
7. Linear regression analysis is performed in order to check the proposed variable relationship among SL and PS.



8. Preacher and Hayes (2013) used in current dissertation to estimate moderation and mediation analysis by using model 1 and 4 discretely.
9. Preacher and Hayes methods were used in order to check that hypotheses are accepted or rejected.

# Chapter 4

## Results

Chapter 4 includes details about descriptive stats, correlation and regression. Mediation and moderation tables are also included.

### 4.1 Descriptive Statistics

Descriptive statistics help in recognizing important information regarding accumulated data. In our data, the sample size is 282 and total number of items in questionnaire are 46. In the descriptive statistics the information regarding minimum value, maximum value, mean, standard deviation for the total number of respondents participated in the study are represented. Mean is said to be the average value whereas standard deviation is the variation of responses from their mean. The variables used in this study are measured against 5-point Likert scale where 1 = strongly disagree, 5 = strongly agree and 3 = neutral.

TABLE 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Standard Deviation
Shared leadership	282	1	5	3.6838	0.52385
Team Building	282	1	5	3.8748	0.53921
Project Complexity	282	1	5	3.4645	0.73475
Project Success	282	1	5	3.9153	0.62690

Above table 4.1 depicts the descriptive statistic of current data. Data is indicating the significance values of whole variables. The table have multiple columns that represents the details about variables, size of data, minimum, maximum value and the data regarding the mean and standard deviation. The mean value of SL (independent variable) is 3.6838 and the SD is 0.52385. The mean of team building (mediator) is 3.8748 and SD is 0.53921. The mean of project complexity (moderator) is 3.4645 and the SD is 0.73475. The mean of PS (dependent) is 3.9153 and the SD is 0.62690. The mean is the core value of responses. The minimum value of variables is 1 and the maximum value is 5.

## 4.2 Correlation Analysis

Correlation analysis identifies and categories the proposed relationship and association between the variables. Prime objective of accompanying the correlation is to check either association between SL and PS occurs or not. Moreover, relationships with mediating role of team building and moderating role of project complexity correlation also measured.

The analysis of correlation provides the information about the strength and weakness of relationship among presented variables. The results of correlation is interpreted below. If the value of correlation is 0, it means that there is no association occurs between the variables and if the value of correlation is away from 0, it means that there is positive or negative relationship transpires among variables. It means relationship can be positive or negative. The positive and negative signs of the value identifies the nature of relationship. Positive value indicates direct relation which means that increase in one variable cause increment in another variable. While, negative value indicates the inverse relation of variable, which means that increase in one variable would decrease the other variable.

Table: 4.2 show the analysis for all the variables involved. The result shows significant relationship between the variables. Result enunciate that there is positive association among SL and team building (where  $r = 0.698^{**}$  and  $p < 0.01$ ). SL and project complexity also posits significant relationship where  $r = 0.264^{**}$  and

TABLE 4.2: Correlation Analysis

Sr No. 1	Variables	1	2	3	4
1	Shared leadership	1			
2	Team Building	0.698**	1		
3	Project Complexity	0.264**	0.248**	1	
4	Project success	0.619**	0.826**	0.240**	1

*N=282, \* p<0.05, \*\* p<0.01*

$p < 0.01$ . Additionally, SL is highly and significantly correlated with PS ( $r = 0.619^{**}$  and  $p < 0.01$ ). Next column shows the significant relationship between team building and project complexity.

Team building is highly significant with project complexity where  $r = 0.248^{**}$  and  $p < 0.01$ , also with PS where  $r = 0.826^{**}$ . There is also significant correlation among project complexity and PS where  $r = 0.240^{**}$  and  $p < 0.01$ .

### 4.3 Regression Analysis

Correlation analysis has been executed to explore the coalition of variables but correlation analysis is not enough to confirm the validity of results. It does not provide any reliable information about the acceptance and rejection of the proposed hypotheses. Therefore, regression analysis has been conducted to prospect the dependency of one variable onto other variable. Regression analysis show how the change in one variable causes change into another variable.

#### 4.3.1 Linear Regression Analysis

**H1:** Shared leadership is positively related to project success

TABLE 4.3: Regression Analysis

Predictor	Project Success		
	$\beta$	R2	Sig
Shared Leadership	.740***	.383	0.000

Table 4.3 presents the details about our first hypothesis. According to H1, SL has direct positive relation with PS. Results of regression analysis explain that SL is positively affecting PS and there is a significant relationship between both of them. The R<sup>2</sup> value is 0.383, Beta coefficient=0.740 and p value=0.000. The p value of 0.00 shows that relationship between IV and DV is highly significant. The positive value of beta shows that it is positively affecting and there is a positive relation between IV and DV in this study. The value of R<sup>2</sup> is 0.383, which demonstrates that SL is bringing a positive change of 0.383 units in PS. Hence, our first hypothesis is accepted by applying linear regression.

In this study, X denotes the independent variable i.e. SL and Y denotes the dependent variable i.e. PS. The pictorial form of unmediated model is shown below. Path 'C' shows the unmediated and direct link of independent and dependent variable.

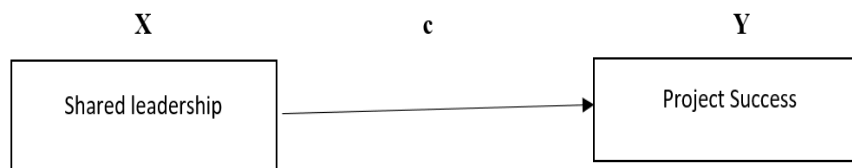


FIGURE 4.1: Linear Regression

**H2:** Shared Leadership is positively related to Team building.

TABLE 4.4: Simple Regression

Predictor	Team Building		
	$\beta$	R <sup>2</sup>	Sig
Shared Leadership	.719***	.698	0.000

Un-standardized regression coefficient reported N=282, \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

Table 4.4 explain the details about our second hypothesis. According to H2, Shared Leadership has direct positive relation with Team Building. Results of regression analysis explain that Shared Leadership is positively affecting Team Building and there is a significant relationship between both of them. The R<sup>2</sup> value is .698, Beta coefficient=0.719 and p value=0.000. The p value of 0.00 shows that relationship

between IV and DV is highly significant. The positive value of beta shows that it is positively affecting and there is a positive relation between IV and DV in this study. The value of R2 is 0.698, which demonstrates that Shared leadership is bringing a positive change of 0.698 units in Team Building. Hence, our second hypothesis is accepted by applying linear regression.

In this study, X denotes the independent variable i.e. SL and Y denotes the dependent variable i.e. TB. The pictorial form of unmediated model is shown below. Path 'C' shows the unmediated and direct link of independent and dependent variable.

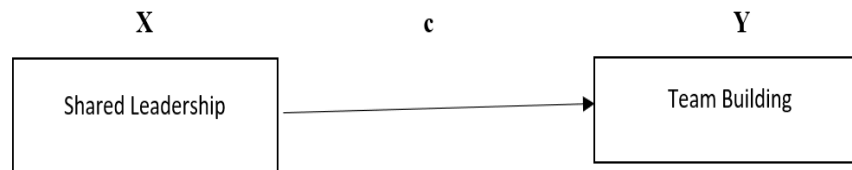


FIGURE 4.2: Linear Regression

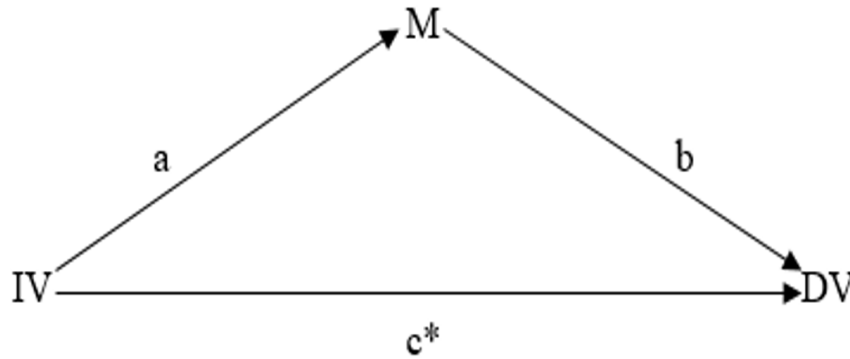
**H3:** Team building is positively related to project success.

TABLE 4.5: Simple Regression

Predictor	Project Success		
	$\beta$	R2	Sig
Team Building	.960***	.826	0.000

Un-standardized regression coefficient reported N=282,  $*p < .05$ ;  $**p < .01$ ;  $***p < .001$

Table 4.5 explain the details about our third hypothesis. According to H3, TB has direct positive relation with PS. Results of regression analysis explain that TB is positively affecting PS and there is a significant relationship between both of them. The R2 value is 0.826, Beta coefficient=0.960 and p value=0.000. The p value of 0.00 shows that relationship between Med and DV is highly significant. The positive value of beta shows that it is positively affecting and there is a positive relation between Med and DV in this study. The value of R2 is 0.826, which demonstrates that TB is bringing a positive change of 0.826 units in ERP System Adoption. Hence, our third hypothesis is accepted by applying linear regression.



## 4.4 Mediation Analysis

H4: Team Building significantly mediates the relationship between shared leadership and project success.

Preacher and Hayes (2013) method is used to check regression analysis of mediation. Mediation analysis is performed to prospect the mediation effect in current dissertation. Understudy mediated variable is team building between SL and PS and this mediation analysis has been examined by run model 4 of Preacher and Hayes (2013).

TABLE 4.6: Mediation Analysis

	$\beta$	se	t	p
Shared leadership $\longrightarrow$ Project Success	0.7376	0.0540	13.6570	0.000
Shared leadership $\longrightarrow$ Team Building	0.6878	0.0412	16.6981	0.000
Team Building $\longrightarrow$ Project Success	0.8933	0.0579	15.4305	0.000

The table 4.3 conrms the Regression analysis of team building by showing the significance. H1, SL is significantly associated with PS ( $\beta = 0.7376$ ,  $t = 13.65$ ,  $p = 0.000$ ). The t value is above than 2 which demonstrate the highly significance of relationship. The beta value enunciate that SL brings 73% changes in achieving PS . This is explored that bossy culture or power distance culture do not helpful in achieving PS . If the project manager allot autonomy to the team members, collectively they will achieve PS according to Pakistani culture. Similarly, H2, SL is significantly associated with team building ( $\beta = 0.6878$ ,  $t = 16.69$ ,  $p = 0.000$ )

is supported through the result. H3, team building is significantly associated with PS ( $\beta = 0.8933$ ,  $t = 15.43$ ,  $p = 0.000$ ) also accepted and has significant results.

## 4.5 Moderation Analysis

**H5:** Project Complexity moderates the relationship between SL and PS ; such that SL and PS relationship become weaker in high project complexity

TABLE 4.7: Moderation Analysis

DV	Effect of SL on PS		Effect of PC on PS		Effect of SL PC on PS		Bootstrap results for indirect effects	
	B	t	B	T	B	t	LL 95% CI	UL 95% CI
<b>MD</b>	.70***	12.6	0.05	1.45	-0.23	-3.41***	-0.365	-0.0982

Un-standardized regression coecient reported. Bootstrap sample size was 1000. Condence Interval = 95%, N = 282, \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\* $p < .001$

The table 4.4 shows that project complexity significantly moderates the relationship between SL and PS . Based on upper and lower limit the unstandardized regression analysis ( $\beta = 0.23$  and  $t = 3.41$ ). The negative sign indicate that one unit of project complexity increment, 23% decrease the relationship of SL to PS . Hence, the hypothesis project complexity moderates the relation between SL and PS such that it weakens the relationship, is accepted.

Below figure represents the graphical explanation of acceptance of moderation Hypothesis 5.

The project complexity moderates the relationship between SL and PS .

Mentioned upward lines indicated constructive association between SL and PS . The orange line represents high PC whereas blue line reflects low PC. The lines slope specifies the relationship between SL and PS . As orange line regulated below blue line with steeper slope which represent high PC. Hence, we say that association between SL and PS becomes weaker. While the blue line lies above the orange line with steeper slope that shows that in case of low PC, association between SL and PS is stronger. The graph clarifies the buffering role and direction of PC between SL and PS.



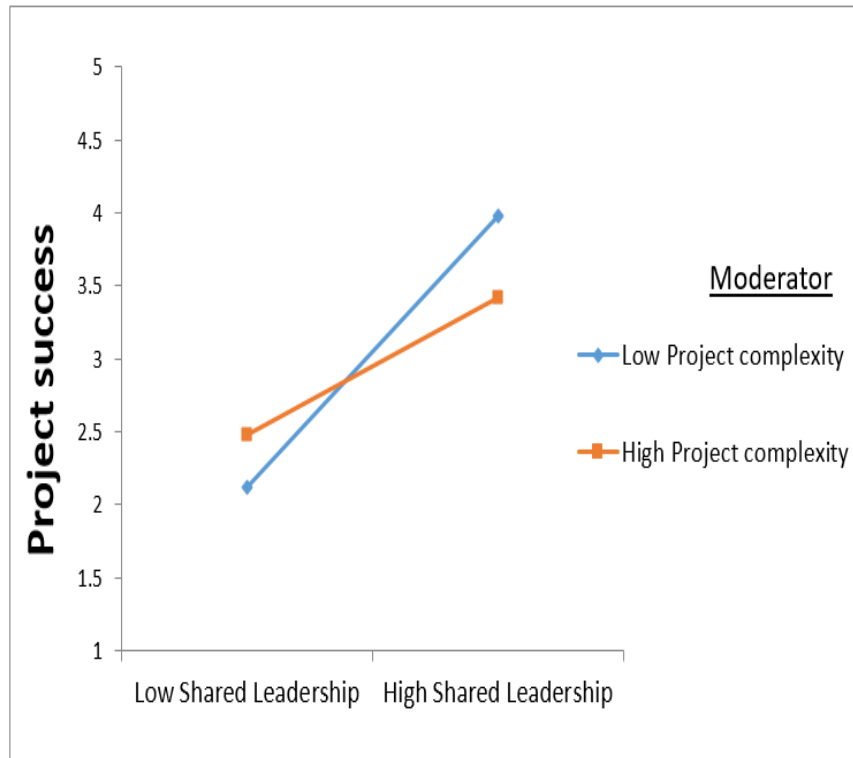


FIGURE 4.3: Interaction Graph

## 4.6 Summary of Accepted/ Rejected Hypothesis

Hypotheses	Statement	Status
H1	Shared leadership is positively related to project success	Accepted
H2	Shared leadership is positively related to team building.	Accepted
H3	Team building is positively related to project success	Accepted
H4	Team building significantly mediates the relationship between shared Leadership and project success.	Accepted
H5	Project Complexity moderates the relationship between SL and PS ; such that SL and PS relationship become weaker in high project complexity	Accepted

# Chapter 5

## Discussion and Conclusion

### 5.1 Discussion

Prime objective of current research is analyze linkage between project teams, PS and SL (SL ) by focusing on process of team building and project complexity. The findings suggest many unanswered questions, as I have conducted this research in the context of Pakistan. The data has been collected from the multiple sectors in Pakistan. Results of my research reveals some particular contribution to literature.

First of all, consistent with previous studies (Carson, Tesluk, & Marrone, 2007; DInnocenzo, Mathieu, & Kukenberger 2016; Wassenaar and Pearce, 2012), the dissertation contributes to the literature that SL has affirmative association with PS . Moreover, the result also supports our hypothesis are accepted. The very first hypothesis which has been proposed is that SL has significant and positive association with PS and this hypothesis provides evidence of being accepted through understudy result. SL has been found origin of project and organizational success.

Second, we also found that SL has positive and significant association with team building. Neck et al. (2006) elaborate that self-leadership is the best way to analyze the strength and weakness of the team on individually basis. So, when the leadership is determined at individual level within team, all members will be able to better understand the flaws and strength of the team members as a whole also as well as individually. This process also enhances the strong bonding of team

members with interpersonal communication. Hence, all members will do equally effort to get PS . So, our two hypotheses were also proved to be significant and results supports that team building positively mediate the relationship between SL and PS . We also hypothesized project complexity moderated the relationship between SL and PS which also approved in presented dissertation.

We discussed each hypothesis independently in detail prescribed below:

### 5.1.1 Hypothesis H1

This hypothesis “There is affirmative association between SL and PS” has been supported by reason. The repercussions of understudy examination demonstrate noteworthy relationship ( $B = .73$ ,  $t = 13.65$ ,  $p = .000$ ).

Moreover, the B co-efficient turns out to be .73 which exhibits one-unit change in SL will lead the project towards success by 73%. Previous studies found the positive association between SL and PS (Clarke, 2012; Prabhakar, 2005; Mathieu & Kukenberger 2016; Wassenaar & Pearce, 2012).

Clarke (2012) says that in project the credit of success is not of one but the whole team as the whole team members SL responsibilities equally to achieve the goal (Scott-Young, Georgy, & Grisinger, 2019).

Moreover, the main object of leadership to take challenges as opportunity and try to resolve the complexity confidently but there is less focus on motivation (Kukenberger, & D’Innocenzo, 2017; Scott-Young, Georgy, & Grisinger, 2019). Research also enunciate that many project leaders are not more focusing on high level of knowledge and expertise sharing but project managers are predominantly employed because they have technical expertise not because they have good leadership skills (Jiang et al. 2001; Narayanan, 2001). And in projects every member is skilled & educated enough to resolve the complexities so they all should have equal opportunity to work together to achieve the goals.

Clarke (2012) identifies that in project unique and for temporary time period team members have to work together. In start conflicts arise that may you don’t want to work together for some time period but after the social exchange and

communication strong bonding develop and SL enables the team members for build trust and cohesion. So, our study is also supporting that SL has positive association with PS .

Underpinning theory SET Social Exchange Theory also exemplifies the process of exchange sin which one party share good deeds with other (Gergen, 1969; Gouldner, 1960). Resources are exchanged through a process even in relationships . Social exchange theory is most widely used conceptual framework in organizational behavior literature (Cropanzano, Anthony, Daniels, & Hall, 2017). And the process of exchange come into existence through 3 ways.

First of all, the SL process and its impact on the team members. Second, when the team members have autonomy and strong trust on each other they will have positive attitude and behavior towards the project. Hence, the team members work diligently as per their success is also associated with the PS . And this becomes a relationship among project and team members which leads the project towards success. So, we can compliance social exchange theory with our presented model that SL is positively associated with PS .

“Any interaction between individuals is an exchange of resources” (Homans 1958, p. 597). According to SET (social exchange theory) when there is any transaction occur in form of shared leadership, the value team members gives to other is more much valuable for other and other members also reciprocate in best way by providing something better in return. Hence, all members share their knowledge and skills in best manner towards project to get PS , on the other hand for the mutual benefit.

### 5.1.2 Hypothesis H2

The hypothesis that ‘SL has positive and significant impact on team building’ is also accepted.

Results shows the conspicuous relationship between SL and team building (B=.687, t= 16.69, p= .000). SL has a t value 16.69 which declares the high importance of relationship. The t esteem which is more than 2 demonstrates that the

results are fair and up to standard. Hence, the remarkable t estimation which is 16.69 shows measurably noteworthy connection of SL with Team building. B coefficient value is .687 which again describes the durable association of SL and Team building. As increase of one unit in SL will ultimately increase 68.7% change in Team building. That's why accordance to the given results, we can say that SL is particularly associated with the team building process in project.

In literature, it is demonstrated that SL is about mutual influence and shared responsibility of tasks with in team members in project and hence every member try hard to realize goal (Pearce & Conger, 2003; Carson, Tesluk, & Marrone, 2007). Hogg (2001) and Hogg, Knippenberg, and Rast (2012) Explained that SL broadens the extent of leader prototypically as per members of team adhere the leadership role in them being prototypical. Members in team has an attitude and behavior that they are a leader and they have identity for leadership. So, they pursue to better for team interest. This is all possible only if team members have high level of team trust in between them and they all understand and respect other member also as a leader (Franz, Leicht, Molenaar, & Messner, 2017). This is why, the team building process come into existence.

Moreover, cooperation behavior of team members develop cognition, attitudes, and actions leads to the better team output (Day et al., 2004; Hollenbeck, Beersma, & Schouten, 2012; LePine, Piccolo, Jackson, Mathieu, & Saul, 2008). Vera and Crossan (2004, p. 227) specified the ideal leader might recognize his or her limitations and share the leadership of organizational learning with colleagues. Hence, team members would become more satisfied as well as accountable for their decision-making process (Hoch & Dulebohn, 2013). So, we can say that SL promote and contribute enough in knowledge sharing and also enhance the self-ability with motivation to take responsibilities among members because of team consensus, team cohesion and satisfaction (Bergman, Rentsch, Small, Davenport, & Bergman, 2012).

Additionally, SET portrays that how many transaction increases among parties, trust and bonding also increases with the same degree. Hence, with in SL members

share their personal values and communicate others informally as well professionally and formally because they understand all of members lies at equal stage and thus the process of sharing increase trust and create team building. Moreover, all members feel themselves relax in sharing and the job and workplace satisfaction among them also increases which develop the feel of we are one in them (Choi, Kim, & Kang, 2017).

Houston and Gassenheimer (1987) annotate that “reciprocation occurs, a pattern of behavior [and trust] begins to be established” (p. 11). So along with SET, we found trust ripen and team members obligate to team commitment and to the exchange relationship with in team (Blau 1964; Homans 1959). Mutual commitment is an important part of functional social exchange because it ensures that team members will put forth the effort and make the investments necessary to produce mutually desirable outcomes (Dwyer, Schurr, and Oh 1987; Ganesan 1994). And these mutually desirable outcomes becomes a major phenomenon for team building. Therefore, with previous studies (D’Innocenzo, Mathieu, & Kukenberger, 2016; Choi, Kim, & Kang, 2017; Barnett, & Weidenfeller, 2016) and supported results we propose the acceptance of our presented hypothesis.

### 5.1.3 Hypothesis H3

This hypothesis team building has positive and significant association with PS is acknowledged through this research. As the aftereffects of the present investigation indicate unimportant relationship ( $B = .893$ ,  $t = 15.43$ ,  $P = .000$ ).

Team building has the B coefficient estimation of .89, which demonstrates the level of relationship. As the t esteem is 15.43, which demonstrates that the outcomes are significant. In this way, in this theory the t estimation depicts significant connection in process of team building and PS . Furthermore, the Beta co-effective turns out to be .89 which demonstrates that if there is a one unit change in team building, it will bring a positive impact of 89.3% in the PS.

There could be many reasons for the acceptance of the hypothesis.

First of all, literature depicts the positive association among team building and PS (Klein, DiazGranados, Salas, Burke, Lyons, & Goodwin, 2009; Aga, Noorderhaven, & Vallejo, 2016; Choi, Kim, & Kang, 2017). The process of team building within project comprises project goal-setting, role-clarification, interpersonal relations, and problem-solving that a highly empowered and committed project team. And team building also enhances knowledge and exposure in individuals regarding project goals, roles and responsibilities, interpersonal communication, and problem-solving skills (Choi, Yun, Leite, & Mulva, 2019; Amin, Kamal, & Sohail, 2016). These upgradation of skills among each member of team create a way of PS .

Literature also posits that team building process has been applied in project based companies to broadened team functioning across projects (Kozlowski & Ilgen, 2006). Four major modules of team building defined by (Beer, 1976; Buller, 1986; Salas et al., 1999) are including goal-setting, developing interpersonal relations, clarifying roles, and creating additional capacity for problem solving. So, the project team members must be able to sort out the issues arise in project and abilities to set the goal and hence each member clearly approach the path of goal achievement and interpersonal relation or bonding between members would increase. With the above mentioned skills, each member will be able to visualize a clear road path of success and hence there would be less chances of project failure.

Moreover, social exchange theory also defines that there is positive association between team building and PS . Emerson (1976) identifies that the more valuable the actions and result of the action for a personnel, he performs the action with the same extent. So, when team building is associated with multiple strong domain for successful project and each member knew the worth of successful project, then they will perform the hard actions to achieve goal and they will do the same until they achieve PS .

The process of exchange is also very important to note. The people working in project have commitment with each other are obligate to return something back for the relationship. According to SET, people return back benefits they receive. For example, they match goodwill and helpfulness toward the party with whom

they have a social exchange relationship and return back their hard works, skills proportionately (Malatesta, 1995; Malatesta & Byrne, 1997; Masterson, Lewis, Goldman, & Taylor, 2000). So, SET theory portrays that team building process leads towards the PS as it is the duty for the each member and he also committed with the PS for the mutual benefit or for giving something good in return.

So, we found through the result and literature that team building has positive association to the PS

#### 5.1.4 Hypothesis H4:

Results of this hypothesis ‘team building mediates the relationship between SL and PS’ are genuine and significant, as the upper limit is .8295 and lower limit is .4596 that are taken from unstandardized regression co-efficient. Both upper and lower limits are positive and there exists no zero in the boot strapped 95% interval around the indirect effect of the relationship of SL and PS through the mediating role of team building.

Results are supporting understudy proposed hypothesis which denotes the acceptance of hypothesis. Significantly, in current dissertation we propose the team building as partially mediation among SL and PS . Current study clearly identifies the mediating role of team-building among the relationship of SL and PS . Therefore, we suggest that this study contribute a vital part towards understanding of SL and its percussion to attain PS.

This finding suggests that SL create team-building practices in a project based organizations much more that help team members to realize PS . These practices of team building include multiple constituents i.e. project goal-setting, role-clarification, interpersonal relations, and problem-solving techniques that jointly motivate and empower a team to attain PS (JoSL in, 2019).

Social exchange theory depicts the ‘interdependence’ phenomenon among team members and mutual benefit of PS (Cropanzano, Anthony, Daniels, & Hall, 2017). So, member’s together work and share the trust, goals, knowledge, skills, abilities, leadership roles. This sharing is only possible when members have team building



in them and they are comfortable with each other in sharing confidentially, so they lead the project towards success. Therefore it is hypothesized that team building can be intervention which help the SL to attain PS.

### 5.1.5 Hypothesis H5:

This hypothesis 'Project complexity moderates on the relationship of SL and PS ; such that when Project complexity is high than the relationship between SL and PS would become weaker' is also acknowledge through this research. As the aftereffects of the present investigation indicate unimportant relationship ( $B = -0.23$ ,  $t = -3.41$ ,  $P = .0004$ ). Project complexity has the B coefficient estimation of  $-0.242$ , which demonstrates the level of relationship. As the t esteem is  $-3.41$ , which demonstrates that the outcomes are significant.

In this way, in this theory the t estimation of  $-3.41$  shows that there is significant connection of Project complexity as an arbitrator between SL and PS . Furthermore, the B co- effective turns out to be  $-0.23$  which demonstrates that if there is a one-unit change in project complexity then it will bring a negative impact of 23% in the relationship between SL and PS by weakening the relationship. There could be many reasons for the acceptance of the hypothesis.

Literature manifest that project complexity weaken the relationship of PS because hard goals need extra effort and also the unclear view of goal path which conducted many issues (Liu, 1999). Complexity has been increased in the project teams with an increasing pace. Research argue that there are some factors which demonstrate project complexity in better way (Sinha and al., 2001; Marle, 2002; Laurikkala and al., 2001; Aissa, 2004).

The analysis of this literature led to the development of the project complexity framework. Project complexity factors are (i) Project Uncertainty. (ii) Infrastructure Newness, (iii) Infrastructure Interconnectivity, and (iv) Infrastructure Size. Infrastructure Size is about the number of elements (components, parts, functions, tasks, specialists ...) are in projects. Infrastructure Interconnectivity denotes the

degree of integration and linkages between the different elements of the infrastructure. Infrastructure Newness represents the portion of the infrastructure to be innovated from previous projects. Project Uncertainty reflects the level and extent of the gap between the knowledge required to perform the project tasks and the knowledge available to the project team. So, these factors are the source of project complexity which in turn leads the project towards failure.

Moreover, social exchange theory fosters Reciprocal interdependence which in turn emphasizes contingent interpersonal transactions, whereby an action by one party leads to a response by another. Hence, when there is project complexity arises, the problems of communication and interpersonal arises and project collapse in time of uncertainty.

Team members heavily rely upon themselves and in time of change and rapid market change uncertainty, newness in project or gap to reach the set goal can create interpersonal conflicts between employees. As per the social exchange theory, if a person gives benefit then receiving party should respond something in form of reciprocity of those benefits in kind (Gergen, 1969). Compliance with the example, if team members share their views and things become overwhelming in project, they will blame each other for the failure which arise interpersonal conflicts and there would be less chance for the PS . Hence, we say whenever there is high project complexity with the SL, there would be less chance to lead the PS.

## **5.2 Practical and Theoretical Implications**

As yet, no prior study has studied the impact of SL on PS , notably within Pakistan context; as a result, our study has equally theoretical along with practical implications likely to be useful for Project based organizations in Pakistan in many ways. Theoretically current study is able to facilitate the present leadership literature and especially the modern era of project management. Consequently, open new ways and unique aspects summing to present limited information. The results of the study are practically significant and amicable because an important and positive association among SL and PS has been tested with mediator team

building and moderator project complexity which is getting great importance in recent history due to not enough fact and information over prior studies.

According to the study SL point outs SL phenomenon where team members shard leadership roles and responsibilities. Presenting team building as mediator which found as eventual outcomes of SL influences the PS. The results of this research explored that SL also fosters team to create team building which as an outcome positively predicts PS.

This study also has few practical implications as well. It indicates that SL leads to PS . Therefore, it is proposed that all hierarchy or bossy culture is diminishing whereby the informal SL culture is emerging in market trends.

So, team building with particular medium of team building can achieve success. Successfully applying SL permits the organization to meet the required goals of specific project. Employee also facilitate with the autonomy and decision making authority by having no leader in them for law and order rule which makes the members relax and encourage them enough to materialize their potential to achieve goals of project and thereby gain PS.

### **5.3 Limitations and Future Research**

The current study adopted the cross-sectional data collection method. We have collected the data at once but due to the time shortage it was hard to recover the all data in time lag study. It was also the major reason of small sample size. The other shortcoming is the use of convenience sampling technique. Convenience sampling is adopted to collect data randomly from large-scaled population. Therefore, it is hard for us to generalize current study results because of its small sample size, limited geographical and convenience sampling procedure.

Despite of small sample size, the current study brings several shortcomings that require the future researches. Data were collected only from 2 cities of Pakistan Rawalpindi and Islamabad.

Secondly, the study was conducted only in Pakistan that could raise the question of cultural influence. So, future researchers can test these relationships in other cultures or countries.

At last, current study only took into account for contextual factors such as Project complexity for enhancing the relationship between SL and PS . Future researchers can investigate other contextual factors such as interpersonal conflicts, perception of politics etc.

## **5.4 Conclusion**

In this study, I have developed a domain of SL and its impact on PS , which is very imperative and popular province in fresh era in order to compete globally amongst all the emerging project-based organization in the world. The main focus of current study in identifying out consequences of shared leadership. It is discovered that SL contribute a great part in achieving PS . Also, this study has demonstrated the role of team building as partial mediator between SL and PS . The length of this research has inspected an exclusive task of project complexity as a moderator among the association of SL and PS in a project.

Data collection for the investigation of this research was composed throughout questionnaires, which were disseminated to the multiple project-based organizations in Pakistan based on different sectors i.e educational, multinational companies, service, public and private sectors. This study and the proposed hypotheses are being supported through social exchange theory. In total 450 questionnaires were disseminated but only 280 were used for the study reason since those 280 questionnaires were having the most appropriate and full information required for the analysis of the study. The major involvement of this research is that this research has thrown a lot in the obtainable writing for the reason that there has been an incomplete work on research of the impact of SL and PS with team-building as mediator and project complexity as moderator. In this investigation, H1, H2, H3, H4 and H5 are being acknowledged by the Pakistani setting according to the context of Pakistan alongside the help of past writing.

# Bibliography

- Aga, D. A., Noorderhaven, N., & Vallejo, B. (2016). Transformational leadership and project success: The mediating role of team-building. *International Journal of Project Management*, 34(5), 806-818.
- Aga, D. A., Noorderhaven, N., & Vallejo, B. (2016). Transformational leadership and project success: The mediating role of team-building. *International Journal of Project Management*, 34(5), 806-818.
- Amin, S. U., Kamal, Y., & Sohail, A. (2016). The relationship between transformational leadership and project team performance: Assessing the mediating role of a project team management education. *Apeejay Journal of Management Sciences and Technology*, 3(3), 1-12.
- Ammeter, A. P., & Dukerich, J. M. (2002). Leadership, team building, and team member characteristics in high performance project teams. *Engineering Management Journal*, 14(4), 3-10.
- Atkinson, R. (1999), -Project management: cost, time and quality, two best guesses and a phenomenon, it-s time to accept other success criteria-, *International Journal of Project Management*, Vol. 17 No. 6, pp. 337-42
- Avolio, B. J., Jung, D., Murry, W., & Sivasubramaniam, N. 1996. Building highly developed teams: Focusing on shared leadership process, efficacy, trust, and performance. In D. A. J. D. A. Beyerlein & S. T. Beyerlein (Eds.), *Advances in interdisciplinary studies of work teams*: 173-209. Greenwich, CT: JAI Press

- Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual review of psychology*, 60, 421-449.
- Baccarini, D. (1999), -The logical framework method for determining critical success/failure factors in projects-, *International Journal of Project Management*, Vol. 14 No. 3, pp. 141-51.
- Baiden, B., Price, A., 2011. The effect of integration on project delivery team effectiveness. *Int. J. Proj. Manag.* 29, 129-136
- Bakhshi, J., Ireland, V., & Gorod, A. (2016). Clarifying the project complexity construct: Past, present and future. *International Journal of Project Management*, 34(7), 1199-1213.
- Barnett, R. C., & Weidenfeller, N. K. (2016). Shared leadership and team performance. *Advances in Developing Human Resources*, 18(3), 334-351.
- Barnett, R. C., & Weidenfeller, N. K. (2016). Shared leadership and team performance. *Advances in Developing Human Resources*, 18(3), 334-351.
- Beer, M. (1976). The technology of organization development. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 937-994). Chicago: Rand McNally.
- Bergman, J. Z., Rentsch, J. R., Small, E. E., Davenport, S. W., & Bergman, S. M. (2012). The shared leadership process in decisionmaking team. *The Journal of Social Psychology*, 152, 17- 42. doi: 10.1080/00224545.2010.538763
- Blau (1964), *Exchange and Power in Social Life*. New York: John Wiley & Sons, Inc.
- Blau, Peter M. (1960), -A Theory of Social Integration,- *The American Journal of Sociology*, 65 (6), 545-556.
- Boardman, M. (2001). The Value of Shared Leadership: Tasmanian Teachers' and Leaders' Differing Views. *International Studies in Educational Administration*, 29(3).

- Bubshait, A. A., & Farooq, G. (1999). Team building and project success. *Cost engineering*, 41(7), 34-38.
- Buller, P. F. (1986). The team building-task performance relation: Some conceptual and methodological refinements. *Group and Organization Studies*, 11, 147-168
- Burke, C.S., Fiore, S.M. and Salas, E. (2003). The role of shared cognition in enabling shared leadership and team adaptability. In Pearce, C.L. and Conger, J.A. (eds), *Shared Leadership Reframing the Hows and Whys of Leadership*. Thousand Oaks, CA: Sage, pp. 103-122.
- Carson, J. B., Tesluk, P. E., & Marrone, J. A. (2007). Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of Management Journal*, 50, 1217-1234. doi:10.2307/20159921
- Carson, J. B., Tesluk, P. E., & Marrone, J. A. (2007). Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of management Journal*, 50(5), 1217-1234.
- Choi, J., Yun, S., Leite, F., & Mulva, S. P. (2019). Team integration and owner satisfaction: Comparing integrated project delivery with construction management at risk in health care projects. *Journal of Management in Engineering*, 35(1), 05018014.
- Choi, S. B., Kim, K., & Kang, S. W. (2017). Effects of transformational and shared leadership styles on employees' perception of team effectiveness. *Social Behavior and Personality: an international journal*, 45(3), 377-386.
- Clarke, N. (2012), -Guest editorial: leadership in projects: what we know from the literature and new insights-, *Team Performance Management*, Vol. 18 No. 3/4, pp. 128-47.
- Clarke, N. (2018). *Relational Leadership: Theory, Practice and Development*. London: Routledge.
- D-Innocenzo, L., Mathieu, J. E., & Kukenberger, M. R. (2016). A meta-analysis of different forms of shared leadership-team performance relations. *Journal of Management*, 42(7), 1964-1991.

- D-Innocenzo, L., Mathieu, J. E., & Kukenberger, M. R. (2016). A meta-analysis of different forms of shared leadership-team performance relations. *Journal of Management*, 42(7), 1964-1991.
- Dao, B., Kermanshachi, S., Shane, J., Anderson, S., & Hare, E. (2016). Identifying and measuring project complexity. *Procedia Engineering*, 145, 476-482.
- Day, D. V., Gronn, P., & Salas, E. (2004). Leadership capacity in teams. *The Leadership Quarterly*, 15, 857- 880. doi:10.1016/j.leaqua.2004.09.001
- Dwyer, F. Robert, Paul H. Schurr, and Sejo Oh (1987), -Developing Buyer-Seller Relationships,- *Journal of Marketing*, 51 (April), 11-27.
- Dyer Jr, W. G. (2015). Team building. *Wiley Encyclopedia of Management*, 1-2.
- Emerson, R. M. (1976). Social exchange theory. *Annual review of sociology*, 2(1), 335-362.
- Franz, B., Leicht, R., Molenaar, K., & Messner, J. (2017). Impact of team integration and group cohesion on project delivery performance. *Journal of construction engineering and management*, 143(1), 04016088.
- Ganeson, Shankar (1994), -Determinants of Long-Term Orientation in Buyer-Seller Relationships,- *Journal of Marketing*, 58 (April), 1-19.
- Gergen, K. J. 1969. *The psychology of behavioral exchange*. Reading, MA: Addison-Wesley.
- Gouldner, A. W. 1960. The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25: 161-178
- Gundersen, G., Helles-y, B.T., Raeder, S., 2012. Leading international project teams the effectiveness of transformational leadership in dynamic work environments. *J. Leadersh. Org. Stud.* 19 (1), 46-57
- Guzzo, R. A., & Shea, G. P. (1992). Group performance and intergroup relations in organizations. In S. Zedeck (Ed.), *Handbook of industrial and organizational psychology*. Vol., 3: Maintaining, expanding, and contracting the organization (pp. 269 -313). Washington, DC: American Psychological Association.



- He, Q. H., Luo, L., Hu, Y., and Chan, A. P. C. (2015). -Measuring the complexity of mega construction projects in China-A fuzzy analytic network process analysis.- *Int. J. Project Manage.*, 33(3), 549-563.
- Hoch, J. E. (2013). Shared leadership and innovation: The role of vertical leadership and employee integrity. *Journal of Business and Psychology*, 28(2), 159-174.
- Hoch, J. E., & Dulebohn, J. H. (2013). Shared leadership in enterprise resource planning and human resource management system implementation. *Human Resource Management Review*, 23, 114 -125. doi: 10.1016/j.hrmr.2012.06.007
- Hoch, J. E., & Dulebohn, J. H. (2017). Team personality composition, emergent leadership and shared leadership in virtual teams: A theoretical framework. *Human Resource Management Review*, 27(4), 678-693.
- Hoch, J. E., & Kozlowski, S. W. (2014). Leading virtual teams: Hierarchical leadership, structural supports, and shared team leadership. *Journal of Applied Psychology*, 99, 390-403.
- Hoch, J. E., & Kozlowski, S. W. (in press). Leading virtual teams: Hierarchical leadership, structural supports, and shared team leadership. *Journal of Applied Psychology*.
- Hogg, M. A. (2001). A social identity theory of leadership. *Personality and Social Psychology Review*, 5, 184 -200. doi:10.1207/ S15327957PSPR0503\_1
- Hogg, M. A., van Knippenberg, D., & Rast, D. E., III. (2012). The social identity theory of leadership: Theoretical origins, research findings, and conceptual developments, *European Review of Social Psychology*, 23, 258 -304. doi:10.1080/10463283.2012.741134
- Hollenbeck, J. R., Beersma, B., & Schouten, M. E. (2012). Beyond team types and taxonomies: A dimensional scaling conceptualization for team description. *The Academy of Management Review*, 37, 82-106
- Homans, G. C. 1958. Social behavior as exchange. *American Journal of Sociology*, 63: 597-606.

- Homans, George C. (1958), -Social Behavior as Exchange,- *American Journal of Sociology*, 63 (May), 597-606.
- Houston, Franklin S. and Jule B. Gassenheimer (1987), -Marketing and Exchange,- *Journal of Marketing*, 51 (October) 3-18.
- Houston, Franklin S. and Jule B. Gassenheimer (1987), -Marketing and Exchange,- *Journal of Marketing*, 51 (October) 3-18.
- Hu, Y., Chan, A. P. C., and Le, Y. (2012). -Conceptual framework of program organization for managing construction megaprojects-Chinese client-s perspective.- *Proc., Engineering Project Organization Conf., Univ. of Colorado and Ashwin Mahalingam, IT-Madras*, 1-24
- Jackson, S. (2000). A qualitative evaluation of shared leadership barriers, drivers and recommendations. *Journal of management in medicine*, 14(3/4), 166-178.
- Jiang, J.J., Klein, G. and Chenoun-Gee, H. (2001), -The relative influence of IS project implementation policies and project leadership in eventual outcomes-, *Project Management Journal*, Vol. 32 No. 3, pp. 49-55.
- Jiang, J.J., Klein, G. and Chenoun-Gee, H. (2001), -The relative influence of IS project implementation policies and project leadership in eventual outcomes-, *Project Management Journal*, Vol. 32 No. 3, pp. 49-55
- Joslin, R. (2019). *Project Management Methodologies, Project Success, Project Governance, Contingency Theory, Agency Theory, and Stewardship Theory.* In *Project Management Methodologies, Governance and Success* (pp. 17-30). Auerbach Publications.
- Kennedy, D. M., McComb, S. A., and Vozdolska, R. R. (2011). -An investigation of project complexity-s influence on team communication using Monte Carlo simulation.- *J. Eng. Technol. Manage.*, 28(3), 109-127.
- Khan, M. R., & Wajidi, A. (2019). *Role of Leadership and Team Building in Employee Motivation at Workplace.* *Global Management Journal for Academic & Corporate Studies*, 9(1), 39-49.

- Klein, C., DiazGranados, D., Salas, E., Le, H., Burke, C. S., Lyons, R., & Goodwin, G. F. (2009). Does team building work?. *Small Group Research*, 40(2), 181-222.
- Klein, Cameron, Deborah DiazGranados, Eduardo Salas, Huy Le, C. Shawn Burke, Rebecca Lyons, and Gerald F. Goodwin. "Does team building work?." *Small Group Research* 40, no. 2 (2009): 181-222.
- Kocolowski, M. D. (2010). Shared leadership: Is it time for a change. *Emerging Leadership Journeys*, 3(1), 22-32.
- Kozlowski, S. W. J., & Ilgen, D. R. (2006). Enhancing the effectiveness of work groups and teams. *Psychological Science in the Public Interest*, 7(3), 77-124.
- Kukenberger, M., & D'Innocenzo, L. (2017). Foundation of shared leadership: examining climate and team role diversity. In *Academy of Management Proceedings* (Vol. 2017, No. 1, p. 15431). Briarcliff Manor, NY 10510: Academy of Management.
- LePine, J. A., Piccolo, R. F., Jackson, C. L., Mathieu, J. E., & Saul, J. R. (2008). A meta-analysis of teamwork processes: Tests of a multidimensional model and relationships with team effectiveness criteria. *Personnel Psychology*, 61, 273-307.
- Liu, A. M. (1999). A research model of project complexity and goal commitment effects on project outcome. *Engineering Construction and Architectural Management*, 6(2), 105-111.
- Lu, J. G., Brockner, J., Vardi, Y., & Weitz, E. (2017). The dark side of experiencing job autonomy: Unethical behavior. *Journal of Experimental Social Psychology*, 73, 222-234.
- Luo, L., He, Q. H., and Shu, L. L. (2015). -Identifying the project complexity factors of complex construction projects.- 2015 Int. Conf. on Management Science and Engineering, IEEE Technology Management Council, NJ.
- Luo, L., He, Q., Xie, J., Yang, D., & Wu, G. (2016). Investigating the relationship between project complexity and success in complex construction projects. *Journal of Management in Engineering*, 33(2), 04016036.

- Malatesta, R. M. 1995. Understanding the dynamics of organizational and supervisory commitment using a social exchange framework. Unpublished doctoral dissertation, Wayne State University, Michigan
- Malatesta, R. M., & Byrne, Z. S. 1997. The impact of formal and interactional procedures on organizational outcomes. Paper presented at the 12th annual conference of the Society for Industrial and Organizational Psychology, St. Louis, MO.
- Masterson, S. S., Lewis, K., Goldman, B. M., & Taylor, M. S. 2000. Integrating justice and social exchange: The differing effects of fair procedures and treatment on work relationships. *Academy of Management Journal*, 43: 738-748.
- Maylor, H., Vidgen, R., and Carver, S. (2008). -Managerial complexity in project based operations: A grounded model and its implications for practice.- *Project Manage. J.*, 39(S1), S15-S26
- McCleskey, J. A. (2018). Millennial leadership expectations, shared leadership, and the future of organizations. *J Manage Sci Bus Intell*, 3(2), 50-52.
- Mehra, A., Smith, B.R., Dixon, A.L. and Robertson, B. (2006), -Distributed leadership in teams: the network of leadership perceptions and team performance-, *The Leadership Quarterly*, Vol. 17 No. 3, pp. 232-245.
- Merkens, B. J., & Spencer, J. S. (1998). A successful and necessary evolution to shared leadership: a hospital-s story. *Leadership in Health Services*, 11(1), 1-4.
- Merkens, B. J., & Spencer, J. S. (1998). A successful and necessary evolution to shared leadership: a hospital-s story. *Leadership in Health Services*, 11(1), 1-4.
- Mertens, N., Boen, F., & Fransen, K. (2017). Implementing a structure of shared leadership: Testing the effectiveness of Shared Leadership Mapping and the 5R-Shared Leadership Development Program. In *International Conference on Social Identity and Sport*, Date: 2017/07/01-2017/07/02, Location: Leuven. *International Conference on Social Identity and Sport*.

- Meyers, R. A., & Johnson, J. R. (2008). Facilitating the design of a campus leadership team. *Communication Education*, 57(4), 472-481.
- Mihm, J., Loch, C., and Huchzermeier, A. (2003). -Problem-solving oscillations in complex engineering projects.- *Manage. Sci.*, 49(6), 733-750
- Morgeson, F. P., DeRue, D. S., & Karam, E. P. (2010). Leadership in teams: A functional approach to understanding leadership structures and processes. *Journal of Management*, 36, 5-39.
- M-ller, R. (2019). The Relationship Between Project Governance and Project Success. In *Project Management Methodologies, Governance and Success* (pp. 141-170). Auerbach Publications.
- Narayanan, V.K. (2001), *Managing Technology and Innovation for Competitive Advantage*, Prentice Hall, Upper Saddle River, NJ.
- Narayanan, V.K. (2001), *Managing Technology and Innovation for Competitive Advantage*, Prentice Hall, Upper Saddle River, NJ.
- Nixon, P., Harrington, M., & Parker, D. (2012). Leadership performance is significant to project success or failure: a critical analysis. *International Journal of productivity and performance management*, 61(2), 204-216.
- Nixon, P., Harrington, M., & Parker, D. (2012). Leadership performance is significant to project success or failure: a critical analysis. *International Journal of productivity and performance management*, 61(2), 204-216.
- Noe, R. A. (2002). *Employee training and development* (2nd ed.). Boston: McGraw-Hill.
- Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.
- O-Toole, J. (2001). When leadership is an organizational trait. In W. Bennis, G. M. Spreitzer, & T. G. Cummings (Eds.), *The Future of Leadership* (pp. 158-176). San Francisco, CA: Jossey-Bass

- O'Toole, J., Galbraith, J., & Lawler III, E. E. (2002). When two (or more) heads are better than one: The promise and pitfalls of shared leadership. *California Management Review*, 44(4), 65-83.
- Payne, V. (2001). *The team-building workshop: A trainer-s guide*. New York: AMACOM.
- Pearce, C. L., & Conger, J. A. (2002). *Shared leadership: Reframing the hows and whys of leadership*. Sage.
- Pearce, C. L., & Conger, J. A. (2003). All those years ago: The historical underpinnings of shared leadership. In C. L. Pearce & J. A. Conger (Eds.), *Shared leadership: Reframing the hows and whys of leadership* (pp. 1-18). Thousand Oaks, CA: Sage. doi:10.4135/9781452229539.n1
- Perry, M. L., Pearce, C. L., & Sims, H. P. 1999. Empowered selling teams: How shared leadership can contribute to selling team outcomes. *Journal of Personal Selling & Sales Management*, 19: 35-51.
- Perry, M.L., Pearce, C.L. and Sims, H.P. (1999), -Empowered selling teams: how shared leadership can contribute to selling outcomes-, *Journal of Personal Selling and Sales Management*, Vol. 19 No. 3, pp. 35-51.
- Pitelis, C. N., & Wagner, J. D. (2019). Strategic Shared Leadership and Organizational Dynamic Capabilities. *The Leadership Quarterly*, 30(2), 233-242.
- Pollack, J., & Matous, P. (2019). Testing the impact of targeted team building on project team communication using social network analysis. *International Journal of Project Management*, 37(3), 473-484.
- Prabhakar, G. P. (2005). Switch leadership in projects an empirical study reflecting the importance of transformational leadership on project success across twenty-eight nations. *Project Management Journal*, 36(4), 53-60.

- Prabhakar, G.P. (2005), -Switch leadership in projects: an empirical study reflecting the importance of transformational leadership on project success across twenty-eight nations-, *Project Management Journal*, Vol. 36 No. 4, pp. 53-60.
- Prather, J. P., Hartshorn, R. L., & McCreight, D. A. (1988). A TEAM LEADERSHIP DEVELOPMENT PROGRAM: THE ELEMENTARY SCIENCE EDUCATION INSTITUTE (ESEI). *Education*, 108(4).
- Remington, K., and Pollack, J. (2007). *Tools for complex projects*, Gower Publishing, Surrey, U.K
- Rice, N. (2006). Opportunities lost, possibilities found: Shared leadership and inclusion in an urban high school. *Journal of Disability Policy Studies*, 17(2), 88-100.
- Rogers, T. M. (2019). PROJECT SUCCESS AND PROJECT TEAM INDIVIDUALS.
- Salas, E., Rozell, D., Mullen, B., & Driskell, J. E. (1999). The effect of team building on performance: An integration. *Small Group Research*, 30, 309-329.
- Sally, D. (2002). Co-leadership: Lessons from republican Rome. *California Management Review*, 44(4), 84-99.
- Schein, E. H. (1969). *Process consultation: Its role in organization development*. Reading, MA: Addison-Wesley.
- Schein, E. H. (1999). *Process consultation revisited: Building the helping relationship*. Reading, MA: Addison-Wesley.
- Schwalbe, K. (2004), *Information Technology Project Management*, 3rd ed., Course Technology, Boston, MA
- Scott-Young, C. M., Georgy, M., & Grisinger, A. (2019). Shared leadership in project teams: An integrative multi-level conceptual model and research agenda. *International Journal of Project Management*, 37(4), 565-581.
- Sebestyen, Z. (2017). Further Considerations in Project Success. *Procedia Engineering*, 196, 571-577.

- Shenhar, A. J., & Dvir, D. (2007). *Reinventing Project Management: The Diamond Approach to Successful Growth and Innovation*. Boston, MA: Harvard Business School Press.
- Small, E. E., & Rentsch, J. R. (2010). Shared leadership in teams: A matter of distribution. *Journal of Personnel Psychology*, 9, 203-211.
- Smircich, L., & Morgan, G. (1982). Leadership: The management of meaning. *The Journal of applied behavioral science*, 18(3), 257-273.
- S-derlund, J. (2011). Pluralism in project management: navigating the crossroads of specialization and fragmentation. *International Journal of Management Reviews*, 13(2), 153-176.
- Sotarauta, M. (2016). Shared leadership and dynamic capabilities in regional development. In *Regionalism contested*(pp. 63-82). Routledge.
- Spooner, S. H., Keenan, R., & Card, M. (1997). Determining if shared leadership is being practiced: evaluation methodology. *Nursing Administration Quarterly*, 22(1), 47-56.
- Steinert, T., Goebel, R., & Rieger, W. (2006). A nurse-physician co-leadership model in psychiatric hospitals: Results of a survey among leading staff members in three sites. *International Journal of Mental Health Nursing*, 15(4), 251-257.
- Sweeney, A., Clarke, N., & Higgs, M. (2019). Shared leadership in commercial organizations: A systematic review of definitions, theoretical frameworks and organizational outcomes. *International Journal of Management Reviews*, 21(1), 115-136.
- Turner, J. R., & Muller, R. (2005). The project manager-s leadership style as a success factor on projects: A literature review. *Project Management Journal*, 36(1), 49-61.
- Tyssen, A. K., Wald, A., & Heidenreich, S. (2014). Leadership in the context of temporary organizations: A study on the effects of transactional and transformational leadership on followers- commitment in projects. *Journal of Leadership & Organizational Studies*, 21(4), 376-393.



- Uhl-Bien, M., Marion, R., & McKelvey, B. (2007). Complexity leadership theory: Shifting leadership form the industrial age to the knowledge era. *The Leadership Quarterly*, 18, 298-318. doi:10.1016/j.leaqua.2007.04.002
- Vera, D., & Crossan, M. (2004). Strategic leadership and organizational learning. *The Academy of Management Review*, 29, 222-240.
- Vidal, L. A., & Marle, F. (2008). Understanding project complexity: implications on project management. *Kybernetes*, 37(8), 1094-1110.
- Vidal, L. A., Marle, F., and Bocquet, J. C. (2011). -Measuring project complexity using the analytic hierarchy process.- *Int. J. Project Manage.*, 29(6), 718-727.
- Wales, W. J., Lumpkin, G. T., & Ensley, M. D. (2006). LINKING NEW VENTURE ENTREPRENEURIAL ORIENTATION TO FIRM PERFORMANCE: A MULTIDIMENSIONAL MODEL OF ORGANIZATIONAL STRUCTURE MODERATION (SUMMARY). *Frontiers of Entrepreneurship Research*, 26(15), 8.
- Wallace, M. (2001). Sharing leadership of schools through teamwork: a justifiable risk?. *Educational Management & Administration*, 29(2), 153-167.
- Wang, D., Waldman, D. A., & Zhang, Z. (2014). A meta-analysis of shared leadership and team effectiveness. *Journal of applied psychology*, 99(2), 181.
- Wu, Q., Cormican, K., & Chen, G. (2020). A meta-analysis of shared leadership: Antecedents, consequences, and moderators. *Journal of Leadership & Organizational Studies*, 27(1), 49-64.
- Xia, B., and Chan, A. P. C. (2012). -Measuring complexity for building projects: A Delphi study.- *Eng. Constr. Archit. Manage.*, 19(1), 7-24.

# Appendix A

## Questionnaire

Dear Participant,

I Muneeb Tajwar doing MS Project Management from Capital University of Science & Technology (CUST), Islamabad. I am conducting a research on Impact of Shared Leadership on project success Mediating Role of Team Building and Moderating Role of Project Managers soft skill. I need you to complete this questionnaire, this will help to collect the data and can further analyze it for my research purpose. I request you to kindly fill this questionnaire and data collected will be kept confidential, will use only for the education purpose.

Sincerely,

**Muneeb Tajwar**

**Capital University of Science and Technology, Islamabad**

	1	2	3	4	5
<b>Gender:</b>	Male	Female			
<b>Age:</b>	18-25	26-33	34-41	42-49	50 and above
<b>Qualification</b>	Matric	Bachelor	Master	MS/MPhil	PhD
<b>Experience</b>	5 and Less	13-Jun	14-21	22-29	30 and above

<b>Section: A. Shared Leadership</b> Please tick the relevant choice		<b>Strongly disagree</b>	<b>disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
1.	When faced with a specific problem, I consult with my subordinates	1	2	3	4	5
2.	Before making a final decision, I give serious consideration to what my subordinates have to say.	1	2	3	4	5
3.	I ask subordinates for their suggestions concerning how to carry out assignments or specific tasks.	1	2	3	4	5
4.	Before taking final action on any specific aspect of the project, I consult with my subordinates	1	2	3	4	5
5.	I ask subordinates for suggestions on what assignments should be pursued or completed.	1	2	3	4	5
6.	I staff my project with team leaders for specialized groups such as a functional team or a technical team.	1	2	3	4	5
7.	I generally allow team leads to provide input about the project team organization and roles, but make the final decisions	1	2	3	4	5
8.	Decision-making authority for team lead roles is an important staffing consideration	1	2	3	4	5
9.	I typically provide coaching to the project team leads so that they can be effective leaders	1	2	3	4	5
10.	I generally allow the project team leads to make the decisions about how to design and execute the project's work products and then hold them accountable.	1	2	3	4	5
11.	I provide guidelines to team leads for how the project's work products should be performed and then they make decisions within the guidelines.	1	2	3	4	5
12.	I typically make most of the key decisions about how the project's work products should be executed.	1	2	3	4	5

<b>Section: B. Team Building</b>		<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
Please tick the relevant choice						
1.	Setting project goals on a participatory basis by the team.	1	2	3	4	5
2.	Involving project team members in action planning to identify ways to achieve project goals.	1	2	3	4	5
3.	Making the basic goals of the project clear to the project team.	1	2	3	4	5
4.	Letting the project team receive timely feedback on performance in relation to goals of the project	1	2	3	4	5
5.	Encouraging team members to meet with each other during the project.	1	2	3	4	5
6.	Discussing relationships among project members frankly.	1	2	3	4	5
7.	Discussing conflicts among project team members frankly.	1	2	3	4	5
8.	Conducting training programs on communication skills for the project team.	1	2	3	4	5
9.	Creating opportunities for sharing of feelings among the project team.	1	2	3	4	5
10.	Clarifying role expectations of each team member.	1	2	3	4	5
11.	Giving information about the shared responsibilities of team members.	1	2	3	4	5
12.	Making project norms familiar to each team member.	1	2	3	4	5
13.	Involving the project team(s) in identifying task-related problems.	1	2	3	4	5
14.	Involving the project team(s) in generating ideas concerning the causes of task-related problems	1	2	3	4	5
15.	Participation of the project team(s) in designing action plans to solve task-related problems of the project.	1	2	3	4	5
16.	Engaging the project team(s) in the implementation of action plans to solve task-related problems	1	2	3	4	5
17.	Engaging the project team(s) in the evaluation of action plans to solve task-related problems.	1	2	3	4	5

<b>Section: C. Project Success</b>		<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Dis-agree</b>
Please tick the relevant choice						
1	I completed my projects on time as scheduled.	1	2	3	4	5
2	I completed my projects within the allocated budget	1	2	3	4	5
3	In the project, I met the quality needs and requirements of the customers.	1	2	3	4	5
4	I was able to achieve satisfaction of my team members with overall project management and performance.	1	2	3	4	5
5	I was able to manage and satisfy all project stakeholders with the project deliverables/outcome.	1	2	3	4	5
6	I was able to achieve end users satisfaction with the project outcome/deliverables.	1	2	3	4	5
7	I was able to ensure satisfaction of suppliers involved in the project.	1	2	3	4	5
8	I was able to achieve the projects purpose.	1	2	3	4	5
9	I am confident that my projects have achieved their self-defined criteria of success.	1	2	3	4	5
10	The project has directly led to improved performance for the end users/target beneficiaries.	1	2	3	4	5
11	The project has made a visible positive impact on the target beneficiaries.	1	2	3	4	5
12	Project specifications were met by the time of handover to the target beneficiaries.	1	2	3	4	5
13	The target beneficiaries were satisfied with the outcomes of the project.	1	2	3	4	5
14	Our principal donors were satisfied with the outcomes of the project implementation.	1	2	3	4	5

<b>Section: D. Project Complexity</b>		<b>Strongly Dis-agree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
Please tick the relevant choice						
1.	The project had a high degree of complexity concerning content.	1	2	3	4	5
2.	To me, the project had a high degree of complexity concerning interdisciplinary participants.	1	2	3	4	5
3.	The project was characterized by high risk and uncertainty.	1	2	3	4	5