

# Impact of Project Manager's Soft Leadership Skills on Project Success

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## Abstract

Purpose of this study is to identify and assess the impact of project managers' communication, interpersonal, coordination, team building and delegation, problem finding, analyzing, solving skills on project success while concurrently assessing the impact of team work as moderating variable on association between project managers' soft leadership skills and project success. This study gathered views of 178 individual associated with organizations related to projects. Non-probability convenience sampling technique was used for drawing samples from population. Descriptive statistics, correlation and regression analysis was used to analyze the data. This study indicates that a statistically significant positive relationship exist between each of identified soft leadership skills and success of project and moderation impact of team work on soft leadership skills. The study amply highlights the importance of project managers' coordination skills and problem finding, analyzing and solving skills. It is hoped that results of this study will provide organizations and individual's related to projects with key skills especially soft leadership skills to focus and successfully execute the projects.

**Keywords:** Soft Leadership Skills, Project Success, Team Work.

## 1 - INTRODUCTION

### 1.1 Background

Project manager plays the most critical role towards success of any project (Kendra & Taplin, 2004; Yang, Huang & Wu, 2010). Since the very start of project management as a profession, planning and execution have been regarded as its key pillars. However, evolution being the prime mover, has affected the science of management as well. Where project management in the past has attributed strong focus towards traditional "objective" or "hard" perspective, emerging trends of "subjective" and "soft" factors e.g. leadership, decision power, motivation, group dynamics, interpersonal communication, culture, and ethics have also assumed equal importance. Soft or Subjective attributes of Project Management are now being regarded as essential to all professional endeavors (Siguroarson, 2009).

Since the dawn of 21<sup>st</sup> century, researchers like Kirsch (2000) have strongly advocated requirement of both hard and soft skills as key project management arsenal. Kirsch (2000), not undermining the traditional project management methodologies, tools and techniques, has drawn world's attention towards project manager's leadership skills, which he refers to as human side or soft skills of any manager. Contemporary writers have also recognized these soft skills as cardinal aspects of success in any project (Shi & Chen, 2006).

Technological skills, background knowledge, domain expertise and project experience may be attributed as hard skills, which define the tangible portion of project manager's resume. Broadly routine management traits and skills such as planning, evaluating, monitoring, risk management and scheduling are all encompassed in this category. Conversely, soft skills, being largely intangible, are hard to measure. Where hard skills follow a definite approach, soft ones are more generic and can only be measured on a different domain, which is more social, than technical. They define a manager's ability to work with different types of people, his inherent personality traits and his capacity to come to terms with stress in work, while still remaining qualitative and productive. (Robles, 2012).

Soft skills are intangible, but they are utterly expressive. They are not measured but felt. Unlike managing organizational structure, it deals with managing organizational behavior and outlook of key persons associated with a task. Soft skills, therefore define a manager's skills in fostering inter and intra organizational

relationships amongst all types of people associated with project. (Kirsch, 2000; Lee et al., 1995).

It is in this domain, that manager gets the best out of his team, which delicately lies between manager and success of project. No project can be executed to perfection, if manager fails to unite the efforts of his team towards the final outcome. Being at the execution and implementing end, managers are dependent on their teams for successful implementation of their orders, directives and instructions. Hence, there has to be an association amongst project manager's leadership, project team member's team work and project outcome; however, very little research has been done on identification of this impact and resultant benefits (Yang, Huang & Wu, 2010).

## 1.2 Identification of Gap

Prior research (e.g., Byrd & Turner, 2001) identified requirement of both hard and soft skills as key aspects for success of project managers. However, their interdependence has mostly been overlooked in real sense. Recent researchers have found new trends (Klaus, 2010). A study indicated that hard skills contribute only 15% to one's success, whereas 85% of success is due to soft skills (Watts & Watts, 2008, as cited in John, 2009).

Generally, because of inherent limitation to gauge the effects of soft skills, they are often under noticed, or may not be granted due importance as it should be (Mayo, 2013). It is probably due to this reason that studies to measure the direct impact of the project manager's skills, especially soft skills, on project success are scarce (Piyush, Dangayach & Mittal, 2011; Turner & Muller, 2005); and even where little attention has been paid towards this aspect, the focus of the researchers have been on investigating the behavior of the leaders and exploring the impact of the project manager's leadership style, instead of project manager's soft leadership skills on project success (Yang, Huang & Wu, 2010).

Past leadership studies have noted that leader communication of enriched task information to the team results in high group effectiveness (Marks, Zaccaro & Mathieu, 2000). An effective communication between project manager and team members will alleviate intermediary problems that negatively affect the project success (Turaga, 2013). While earlier studies have indicated the project manager's communication skills impact on project teams' work (Shi & Chen, 2006), impact of project manager's communication skills on project success has not been ascertained conclusively (Yang, Huang & Wu, 2010). Apart from the contributions which have been made from the early research, amount of the research that have a focus on the human factors influencing project success (Belout & Gauvreau, 2004; Henrie & Sousa-Poza, 2005; Leybourne, 2007) is relatively less. There is a general consensus that an unbalanced focus on hard factors may understate the human factors that can significantly affect the hard factors through which project success is typically established (Jetu & Riedl, 2012).

As a consequence, in the literature there is now a notable call for more vigorous research into the soft factors of project success. In particular, a call for the investigation of the human factors has been made (Henrie & Sousa-Poza, 2005).

Team work matters to individuals, to organizations, and to projects (Narayanaswamy, Grover & Henry, 2013). Teamwork has been regarded as an important facet in most organizations (Deepa & Seth, 2013). Over a period of time it has been felt that project manager's leadership skills are not only of great value in running the organizations' day to day business, but is on importance in today's focused and well organized organizations where small teams, often in temporary workgroups or subunits are working to successfully execute the assigned projects (Pierce, n. d. as cited in Deepa & Seth 2013).

Apropos, it may be concluded that there is need to undertake a study, which through a quantified approach can make an assessment of the association between project managers' soft leadership skills and project success while concurrently assessing the moderating effect of team work on association between project manager's soft leadership skills and project success. Same has been advocated by various researchers in recent years (Piyush, Dangayach & Mittal, 2011; Walker & Walker, 2011; Skulmoski & Hartman, 2010).

Piyush, Dangayach and Mittal (2011), while discussing various leadership factors in context of organizational variables, suggested the need to explore the human aspects of the leadership with emphasis on project manager being a good communicator and role of project team in order to achieve success in project based enterprises.

Walker and Walker (2011), while, contending the way the projects are being delivered today, stressed the need of re-examination of the skills and attributes required by project manager especially in the realms of soft skills, communication and relationship skills and those skills linked to emotional intelligence.

Similarly Skulmoski and Hartman (2010), while investigating the soft leadership skills for project success, also recommended extension of the temporal dimension of soft leadership skills to team members [teams' joint efforts/team work].

This research attempts to fulfill the gap of empirical evidence, through identification of the relationship between soft leadership skills of the project manager and project success. Moreover, it also endeavors to assess the moderating role of team work in the relationship between the project managers' soft leadership and project success.

### 1.3 Objectives of the Study.

Objectives of this research are three folds:-

- Investigate the effect of the project manager's soft leadership skills (communication, interpersonal, coordination, team building, & delegation, problem finding, analyzing & solving) on project success.
- Examine the moderating role of team work in the relationship between the project manager's soft leadership skills (communication, interpersonal, coordination, team building and delegation, problem finding, analyzing, solving) and project success.

### 1.4 Research Questions.

This research intends answering following questions:-

- What are the main soft leadership skills for the project leaders to successfully lead a project team?
- What is the impact of these leadership skills on project success?
- What is the moderating role of team work in the relationship between project managers' soft leadership skills and project success?

### 1.5 Significance of the Study

The result obtained from this research will provide in depth information about the soft leadership skills and how these impact project success. Moreover, will also be able to ascertain in Pakistan's environments, the moderating role of team work in the relationship between project manager's soft leadership skills and project success. This in turn will assist the project managers not only in exercising appropriate skills needed for successfully influencing the project outcome, but will also help them in understanding the team works' influence in impacting relationship between soft leadership skills and project success.

### 1.6 Delimitations

The study has been conducted on different kinds of projects being undertaken in certain specific sectors (predominantly public sector) being executed in various parts of the country (AJK, KPK and Rawalpindi/ Islamabad); hence conclusion drawn, though will be relevant only to a particular part of the country and will require validation for their applicability to the whole of Pakistan.

## 2 – LITERATURE REVIEW

Before dwelling upon the notion of leadership in the context of project management, analogy of hard and soft leadership skills, their effect on the project success and how does the team work figures out in the phenomenon of project manager's soft leadership skill and the project success, it is imperative to understand what does the project success implies, what is its relationship with project manager's leadership and how has the concept of project success evolved over a period of time and what is being taken as standard for measuring project success in this study.

### 2.1 Project Success

There is very little agreement on project success criteria in spite of its frequency of discussion (Siguroarsan, 2009). Although many studies on project success have been published during the past decades, a universally accepted definition has not yet been established (Cook & Davies, 2002; Jugdev & Muller, 2005).

### 2.2 Evolution of Project Success Determinants

Baker, Murphey, & Fisher (1988), basing on previous research, have gathered a list of project success factors; however, specific mentioning of the project manager in the list has not been made. Pinto and Slevin (1988), have identified ten project success factors, which are regarded as a classic piece of work in the realm of project success.

The list produced by Pinto and Slevin (1988) is universally quoted in the perspective of project success factors. However, mentioning of the project manager has also not been made by them.

In 2002, another list of ten factors for information systems projects was produced by Hartman and Ashrafi (2002), which was very similar to Pinto and Slevin's (1988) list. This list was constructed from benchmarking project performance in several benchmarking networks, which were being managed by him; hence it may be termed as subjective assessment of actual project performance. Overt mentioning of the project manager was also not made by him.

From above discussion it can be concluded that:-

Firstly, a project success criterion is in the process of continuous evolution since formalization of project management knowledge. Reasons may be attributed to development/crystallization of project management methodologies and techniques over a period of time and advancement in technology in implementing these methodologies/ techniques.

Secondly, significant differences and concords exist amongst the researchers of different times, as to what implies with regards to project success; which is probably the consequence of the first.

### **2.3 Project Success – Contemporary Views and Measurement Parameters**

Project success is a crucial concept and determining the degree of success or failure is very complex (Chan & Scott, 2004). The topic of project success has always been a central concern in the project management literature (e.g., Cooke–Davies, 2002; Fortune & White, 2006). A significant amount of research has gone into the identification of the determinants of project success (Jetu & Riedl, 2012).

A project is considered to be successful if there is no time or cost overruns and it meets expectations (Narayanawamy, Grover & Henry, 2013). Collaboration of multiple specialists and need to integrate their skills in a befitting manner is required for successful execution of the project (Sicotte & Langley, 2000) and to achieve uniformity of the ideas and views within the team while taking into account the budget and schedule constraints (Hoegl & Parboteeah, 2007).

### **2.4 Impact of Project Manager’s Leadership Skills on Project Success**

**Leadership Definition.** Leadership is as old a phenomenon as human civilization; and perhaps that is why there are so many definitions of leadership. However, while reaming cognizant of the focus of this study; that is impact of leadership skills of the project manager for successful execution of the project, only relevant definitions will be discussed. Leadership according to Hemphill and Coons (1957), is defined as the conduct of an individual which aims at guiding the activities of a group for achievement of a shared goal” (Gregoire & Arendt, 2004, p.396). Jago (1982) defined leadership as the use of non-coercive influences to direct the activities of the members of an organized group towards the accomplishment of group objective.

#### **Difference between Project Leadership and Management.**

Leadership and management are two different concepts. Davis (1967) distinguished between project leadership and management by acclaiming that leadership is part of management, but is not all of it. Leadership is the ability to persuade others to accomplish pre-defined goals with zeal, enthusiasm and willingness (Shi & Chen, 2006). Management comprised of the activities such as planning, organizing and decision making etc, which are dormant cocoons until catalyzed by the leader through his power of motivation (Shi & Chen, 2006).

### **2.6 Project Manager’s Leadership Skills - Importance and its Association with Project Success**

Though a lot has been written about project leadership, however most of the researchers have been focusing on the role of the project leader and project team members, in a traditional cost-driven project environment (Walker & Walker, 2011). However project managers personal leadership attributes, which are considered as intangible factors and its impact on project success is generally lacking (Shi & Chen, 2006). Research into leadership has demonstrated that strong leadership is crucial to the success of projects (Mascia, 2012). During last few years, an ever increasing awareness has been observed with the requirement to identify the intangible factors, which are considered as important from the perspective of the role of an individual’s success at the workplace (Deepa & Seth 2013).

Apart from the contributions made by the earlier research there are limited number of studies which lays emphasis on the human factors influencing project success (Belout & Gauvreau, 2004; Leybourne, 2007). This result is not surprising, because the idea of project success has historically been understood from the technical aspects of projects (Belout & Gauvreau, 2004; Soderlund, 2004a). Consequently, hard factors (time, cost, and quality) have been considered as the major drivers of project success (Leybourne, 2007; Pollack, 2007; Soderlund 2004a).

People are considered core elements in the successful delivery of projects. “Managing people effectively influences many results of a project” (Belout, 1998, p. 23 as cited in Jetu & Riedl, 2012), “the communication theme to project success or failure is the people involved with the project” (Henrie & Sousa–Poza, 2005, p. 5 as cited in Jetu & Riedl, 2012), or it is fast becoming an accepted wisdom that processes and systems do not drive the project, instead it the people who makes the project a success (Cooke–Davies, 2002, p. 189 as cited in Jetu & Riedl, 2012); are three exemplary statements that express the importance of the human element in the PM literature.

As discussed in early part of this article, apart from traditional project management methodologies, tools and techniques, project manager’s leadership skills, which can also be called as human side or soft skills, have been widely accepted as a pivotal factor in the success of the project (Shi & Chen, 2006). In various studies conducted on success or failure of the projects, effective leadership (Ammeter & Dukerich, 2002), good communication, (White & Fortune, 2002), the capability of working un stressed environments in a complex situations (White & Fortune, 2002) were found as essential skills needed for the project managers.

Hence from above discussion it may be concluded that, there is strong agreement in both academia and

practice today that especially the human factors are critical elements of project success. Project manager leadership is major dimension of project team success as it brings purpose, clarity, direction, motivation, and the necessary integration to teams (McDonough, 2000; Thamhain, 2004a).

According to El- Sabaa (2001), the human skills of a project leader should include:-

1. Mobilizing – project manager can mobilize the intellectual and emotional energy of his/her subordinates
2. Communication skills
3. Coping with situations
4. Delegating authority
5. Displaying political sensitivity
6. Maintaining high self esteem
7. Demonstrating enthusiasm

Similarly, Low and Christopher (2000), in their research into cross cultural project management in China, highlighted the relative importance of following skills for project managers:-

1. Effective communication skills
2. Effective leadership skills
3. Good interpersonal skills
4. Adaptability and flexibility
5. Functional strengths

From preceding literature review, following may be concluded:-

1. Hard and soft leadership skills are two different sides, though of the same coin (The Project Manager).
2. To successfully execute the projects, project manager, apart from expertise in technical side (hard skills), needs to have a good understanding of soft leadership skills also.
3. The earlier research, though has focused on identification of various leadership skills of project manager, however, these has not been combined to study a wholesome impact on project success (Shi & Chen, 2006).

Accordingly, Shi and Chen (2006) in their study, “*Human Side of Project Management – Leadership Skills*” grouped soft leadership skills into five sets given below. Details of these skills as enunciated by Shi and Chen (2006) are given in succeeding paras:-

1. Communication skills
2. Interpersonal skills
3. Coordination skills
4. Team building and delegation skills
5. Problem finding, analyzing & solving skills

## **2.7 Communication Skills**

The first is communication skills, including oral communication, written communication, and comprehensive skills. Oral communication skills are the ability to communicate efficiently with other orally, and the ability to make effective presentation (Shi & Chen, 2006). Written communication skills mean the ability to communicate efficiently by writing documents, letters and reports. Comprehensive skills are the ability to understand both the stated and implied meaning of others (Shi & Chen, 2006).

Past leadership studies have noted that leader communication information of task to the team results in high team work effectiveness (Jetu & Riedl, 2012). Similarly, research examining the leaders’ influence on group emotion has established that less negative emotional reactions are likely to be displayed by the team members, if clear and measurable goals, clear specification of the role of each member and unambiguous performance strategies are provided by the project leader (Mascia, 2012).

Several case reports indicate that developer’s misunderstandings, team conflicts, and poor team relationships are major causes for project failure (Belout & Gauvreau, 2004; Henrie & Sousa-Poza, 2005). Thus, the overarching question is how project communication can influence better team work in order to promote project success. One possible way to achieve this is to foster high-quality exchange relationships.

As a project manager, it is important to understand the involved members’ values and attitudes, communicate clearly, and consider their opinions. For instance, project managers can use perceptual congruence as an instrument to obtain feedback about their project management practices. Doing so will help foster a climate in which disagreements can be discussed constructively and in turn boost team motivation. Similarly,



communicational congruence can be used to determine effectiveness of communication structures to ensure that all of the team members are aptly informed regarding decisions or changes.

Traditionally, communication within projects is planned in advance and the communication generally takes the form of highlight reports and various meetings. These methodologies are fine but they can have their limitations. Highlight reports can be good at conveying information but they are not very good at engaging and enthusing people. Meetings, on the other hand, do have this potential; depending on how they are managed. Project managers need to remember that communication is a human behavior and is therefore affected by our: cognitions, emotions and perceptions. There are various intrapersonal processes that project managers should be aware of e.g. perceptual distortions (generalizing, 'horns and halo' effect, selective perception etc) which all have an effect on the way in which individuals process information. More importantly perhaps, project managers need to have knowledge of interpersonal processes e.g. non-verbal communication. When we communicate with others, around 65% of the information that people pay attention to is non-verbal. A knowledge of communication as a human behavior coupled with a greater understanding of team members and their preferences with regard to communication mediums will facilitate the sort of communication that motivates team members, strengthen their team work and engages them in the project. "Over communicate" is a phrase Wellman uses to emphasize the importance clear and consistent communication plays in the success of any project (Kreger, 2011).

### **2.8 Interpersonal Skills**

The second set is interpersonal skills. These skill include being able to deal with people of different backgrounds, which means the skill of developing relationships with different kinds of people when needed. (Brenton & Levin, 2012) Interpersonal skills also involve persuading motivating and incentive skills. Persuading skills refer to persuading and influencing others to support you in realizing the objectives of the project (Cornelius, 2012). Motivating and incentive skills refer to carrying out special strategies to motivate team members to work hard by identifying their feelings, needs and expectations (Cornelius, 2012; Brenton & Levin, 2012).

### **2.9 Coordination Skills**

The third set, coordination skills, includes being able to build harmonious relationship in order to achieve project goals and dealing with conflicts from both inside and outside (Brenton & Levin, 2012). In addition, controlling project skills are also very important in the coordination process. The project leader must know how to control the problem and move it in an objective-oriented direction.

### **2.10 Team-building and delegation skills**

The fourth set, team-building and delegation skills, includes important skills for a project leader. These skills include team structure design skills, identifying the ability of different project team members, delegation skills and integration skills (Deepa & Seth, 2013).

### **2.11 Problem-finding, analyzing & solving skills**

The fifth set is problem-finding, analyzing and solving skills, which includes being able to discover problems in a timely manner, problem-analyzing skills, judging and decision-making skills, as well as problem solving and controlling skills.

Apropos, successful project management implies that project manager, through, exercise of leadership, shall be able to positively influence the project outcome (Deepa & Seth, 2013). And in this context, role of soft leadership skills cannot be ruled out. Hence, it may be argued that project manager's with higher levels of soft leadership skills, have better influence on the project team and should have better project outcomes. It has also been established by the researchers that technology or hard skills are issues of relative less value resulting in poor performance of projects; whereas management, particularly of human resources [side] (Deepa & Seth, 2013; Sauer, 1993; Lowry et al., 1996) are of more importance.

Hence following hypotheses are proposed to assess the impact of project manager's soft leadership skills on project success:-

- H1.** The project manager's communication skills positively affect the project success.
- H2.** The project manager's interpersonal skills positively affect the project success.
- H3.** The project manager's coordination skills positively affect the project success.
- H4.** The project manager's team building and delegation skill positively affect the project success.
- H5.** The project manager's problem finding, analyzing and solving skill positively affect the project success.

### **2.12 Team Work**

Successful project leaders develop and grow their team. They build strong relationships with and between team members, leading to positive social exchanges (Walker & Walker, 2011). Authentic leadership capabilities are

exhibited by these project leaders and thus viewed as possessing personal integrity and to be living values that lead to followers behaving in a manner consistent with the leader's values (Avolio & Gardner, 2005).

From preceding literature, it is evident that the exercise of soft skills of leadership contribute effectively for enhancement of teamwork. Leadership, therefore indicates that leader's behavior and his interpersonal skills are key factors towards achievement of teamwork including its primary facets of team communication, integration, collaboration and cohesiveness (Wang et al., 2005; Zaccaro et al., 2001). Leadership, therefore can serve to strengthen team bonding and enhance team work by exercise of soft leadership skills (Prati et al. 2003).

In addition to team communication, another most relevant aspect directly affecting team performance is its collaboration; which sets up the group environment. Collaboration as per literal meaning is working together in a group, for a joint cause. It is more pertinent once targets are big and diverse, which can't be undertaken by a single individual. Collaboration indirectly can affect changes on personal and group level, where it improve relationships between team members and gives them a communication feeling towards the cause (Shamir et al., 2000).

When team communication and collaborations are considered, team cohesiveness and integration is another correlated factor. It binds the team towards assigned goals, not merely on job grounds, but on a personal scale. Through cohesiveness, team members associate their interest in the project and team and feel pride in being a member of team. (Wang et al., 2005). Strength of any team/group is measured by degree of cohesiveness they enjoy with each other as a unit. This aspect has been validated by Dionne et al. (2004) by suggesting that leadership can achieve greater degree of team cohesiveness.

Correlation between team performance in tangible terms and teamwork on social side need a thorough perusal as well. Same has been researched by different managers/ writers (Jassawalla & Sashittal, 1999; Kotlarsky & Oshri, 2005 ). Resulting studies prove a definite correlation between these important facets i.e teamwork and team performance. Where teamwork comprises aspects related to communication, collaboration, and cohesiveness; team performance is directly related to outcome in terms of success or failure [of the project]. Researchers like Jassawalla and Sashittal (1999) have also suggested that measure of team final outcome [project success or failure], can be made from having a deep look at these cardinal factors within team (Kotlarsky & Oshri, 2005).

Team work is about collective engagement, and collective engagement is about establishing acceptable interaction patterns and behaviors in a team environment (Zaccaro et al., 2001). In fact, "leadership must invest in the success of the teams and consider themselves an integral part of the team and its process" (Yeh et al., 2006). Leadership is responsible to establish and provide an appropriate team climate that fosters a system to integrate and coordinate the individual and collective contributions of team members (Salas et al., 2005). Effective leadership processes are perceived as means to an end, thereby helping teams to achieve the desired objectives and goals. Leadership clarifies team roles and capabilities, identifies resources available, and creates the environment that makes it possible for team members to work together effectively (Salas et al., 2005).

Taking lead from preceding discussion, we can summarize that teamwork is correlated with leadership traits, skills and style of any project manager (Salas et al., 2005; Kotlarsky & Oshri, 2005; Zaccaro et al., 2001). Where this correlation has already been established by previous research, this study aims to extend it further and address the overall impact of teamwork including all its facets and its association between project managers' soft leadership skills (communication, interpersonal, coordination, team building and delegation, problem finding, analyzing, solving) and project success.

Based on the relevant literature, the following hypotheses have been developed:-

**H6.** Team work moderates the relationship between communication skills and project success.

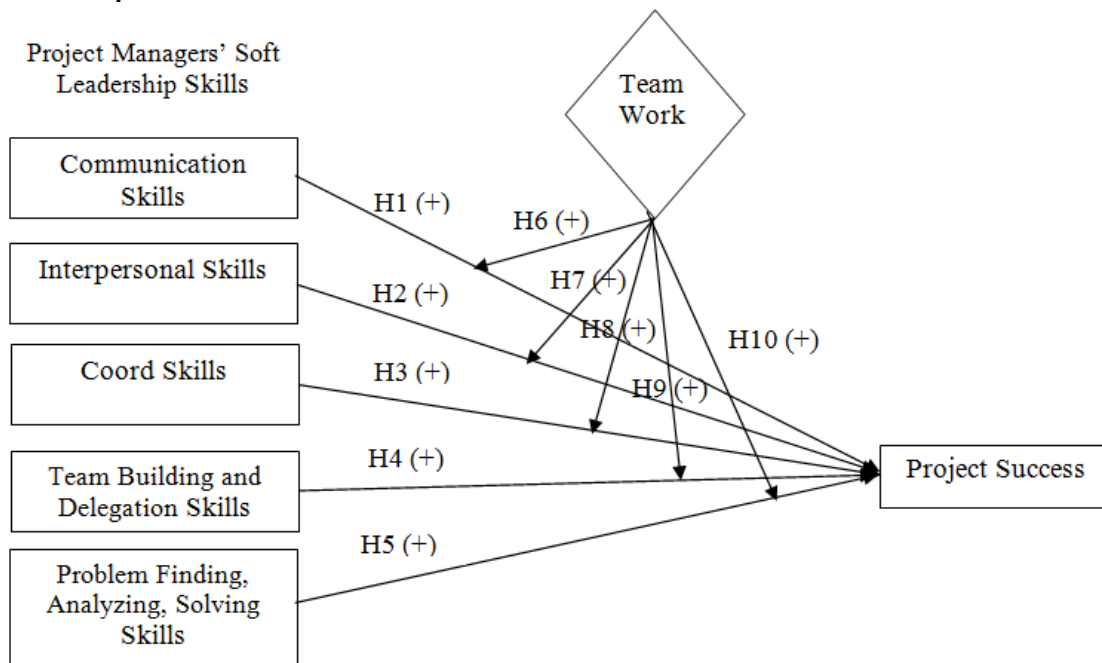
**H7.** Team work moderates the relationship between interpersonal skills and project success.

**H8.** Team work moderates the relationship between coordination skills and project success.

**H9.** Team work moderates the relationship between team building and delegation skills and project success.

**H10.** Team work moderates the relationship between problems finding, analyzing and solving skills and project success.

## 2.13 Conceptual Framework



## 3 – RESEARCH METHODOLOGY

**3.1 Type of Investigation.** This is a cross sectional study which is aimed at investigating impact of soft leadership skills (communication, interpersonal, coordination, team building and delegation, problem finding, analyzing, solving) on project success.

**3.2 Study Setting.** Due to paucity of resources and need to get timely response, this study was conducted on selected organizations in selected areas, wherein an easy access for data collection was available. Projects were randomly selected and size of the project was not been taken into account during the conduct of this study.

**3.3 Unit of Analysis.** The individuals (project, program, senior managers and project team members) of the selected organizations related to projects are unit of analysis for this research.

**3.4 Sampling Technique.** Non-probability convenience sampling technique has been used for drawing samples from population.

**3.5 Data Collection.** Data collected through questionnaires. Data was collected through individual from organizations to include Frontier Works Organization, National Logistics Cell, National Disaster Management Authority, Housing Directorates General Headquarters and Earth Rehabilitation and Reconstruction Authority.

182 questionnaires were received out of 275, out of which 4 questionnaires were discarded due to contradiction/ inconsistency in response. Response rate was 66.18 %.

**3.6 Data Analysis.** Descriptive statistics, correlation, linear regression analysis and Baron and Kenny (1986) Test have been used to analyze the data.

**3.7 Instrument Development** Questionnaire adapted from previous research have been administrated to the individuals (project, program and senior managers as well as team members) of organizations related to projects. Data on demographics of respondents have also been sought. Questionnaire given at Appendix A was administrated to individuals of selected organizations related to projects. Details regarding questionnaire are as under:-

1. **Project Success.** Instrument used for measuring the project success has been adapted from Narayanaswamy, Grover and Henry (2013). Each of the item in the instrument has been measured on five point Likert scale, ranging from 1 = “Strongly Disagree” to 5 = “Strongly Agree”

2. **Team Work.** Instrument used for measuring the Team Work has been adapted from Hoegl and Parboteeah (2007). Each of the item in the instrument has been measured on five point Likert scale, ranging from 1 = “Strongly Disagree” to 5 = “Strongly Agree”



3. **Project Manager’s Soft Leadership Skills.** Instrument used for measuring the Project Manager’s Soft Leadership Skills (communication, interpersonal, coordination, team building and delegation, problem finding, analyzing, solving) has been adapted from Shi & Chen, 2006. Each of the item in the instrument has been measured on five point Likert scale, ranging from 1 = “Strongly Disagree” to 5 = “Strongly Agree”

Necessary modifications were made in the wording for compatibility with own environments. Due care was exercised while wording the questions to reduce chances of misinterpretation. Closed-ended questions were used in questionnaire. Data on demographics of respondents was also sought.

**3.8 Software.** A statistical analysis was done by using IBM SPSS Version 20.

#### 4 - RESULTS AND DISCUSSION

**4.1 Reliability.** Questionnaire was vetted from experts in the industry to ensure content validity. Necessary modifications in the questionnaire were made basing on the input received. Moreover, Cronbach’s Alpha, the reliability coefficient that measures accuracy of instrument was used to check the reliability of questionnaire.

##### *Results of Reliability Testing*

Variable	Cronbach’s a	No. of items
Project Success	0.71	5
Team Work	0.86	7
Communication skill	0.88	3
Interpersonal skills	0.85	3
Coord skills	0.78	3
Team-building and del skills	0.83	4
Problem finding, analyzing and solving skills	0.84	3

##### 4.2 Descriptive Analysis

Descriptive statistics of variables under study is given below. Mean value of project success, communication skills and coordination skills have been found greater than 3, whereas for rest of the variables it has been found greater than 2.5.

##### *Descriptive Statistics – Responses on Independent and Dependent Variables*

Variables	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Project Success	178	1.40	4.60	3.20	.916	-.368	-1.130
Communication Skills	178	2.00	4.33	3.11	.636	.000	-1.160
Coordination Skills	178	2.00	4.00	3.11	.615	-.521	-.815
Problem Finding and Analyzing Skills	178	2.00	3.67	2.88	.524	-.131	-1.276
Interpersonal Skills	178	1.67	3.33	2.62	.381	-.237	.160
Team Building Skills	178	1.85	2.93	2.59	.342	-.229	.143
Team Work	178	1.71	3.57	2.81	.459	-.044	-.336

*Demographic Statistics*

Demographics	Categories	Frequency	Percent
Gender	Male	162	91 %
	Female	16	9 %
Education Level	Bachelors	56	31.5 %
	Masters	58	32.6 %
	M. Phil/MS	43	24.2 %
	PhD	21	11.8 %
	Experience in the Organization	Up to 5 Yrs	43
	6 to 10 Yrs	29	16.3 %
	11 to 15 Yrs	49	27.5 %
	16 to 20 Yrs	43	24.2 %
	>20 Years	14	7.9%
Designation	Team Member	56	31.5 %
	Project Manager	71	39.9 %
	Project Coordinator	22	12.4 %
	Senior Manager	21	11.8 %
	Others	8	4.5 %
Project Type	Construction	71	39.9 %
	IT	43	24.2%
	Support Services	43	24.2%
	Others	21	11.8%
Project Size	Small	42	23.6 %
	Medium	93	52.2 %
	Large	43	24.2 %

**4.3 Demographics Analysis**

A total of 178 valid responses obtained from individual of selected organizations related to projects, out of which majority were males comprising 91% of total respondents; whereas 9% respondents were females. Most of the respondents had Bachelors and Masters level education i.e. 31.5% and 32.6% respectively; a good number had MS/M Phill level of education i-e 24.2%, whereas as a small proportion of respondents had PhD level education i.e. 11.8%. 27.5 % of respondents had 11-15 years of experience, 16.3 % with 6-10 years, 24.2% with 5 or less years, 24.2% from 16-20 years and 7.9 % had more than 20 years of experience. 61.5 % respondents were Mid Level Managers, 13.7 % were Senior Level Managers, 15.4 % were Supervisors, whereas 9.4 % were from workers category. Majority of the respondents were project managers (39.9%) an 31.5% were team members. Majority of the projects were being conducted in construction sectors, followed by IT and Support services. A little more than half of the projects were of medium size (52.2%), followed by small and larger projects.

**4.4 Correlation Analysis**

Connection between two variables is detected by correlation and it determines the proportionality extent of two variable values (Sekaran, 2005). Table below shows the Pearson correlation coefficient of variables under study. Level of significance to test the relationship was 0.01.

Analysis shows that all relationships between dependent and independent variable are significantly correlated. The strongest relationship exists between project success and communication skills, coordination skills and problems finding and analyzing skills;  $r = 0.695$ ,  $r = 0.691$  and  $r = 0.675$  respectively. ,  $p < 0.01$ , followed by interpersonal skills and team building skills.

*Correlations Matrix*

		Project Success	Communication Skills	Interpersonal Skills	Coordination Skills	Team Building Skills	Problems Finding and Analyzing Skills
<b>Project Success</b>							
Communication Skills	Pearson Correlation	.695**					
Interpersonal Skills	Pearson Correlation	.279**	.251**				
Coord Skills	Pearson Correlation	.691**	.690**	.074			
Team Building and Delegation Skills	Pearson Correlation	.274**	.140	.131	.295**		
Problems Finding and Analyzing Skills	Pearson Correlation	.675**	.6030	.077	.686**	.228*	

\*\* . Correlation is significant at the 0.01 level (2-tailed).  
 N= 178

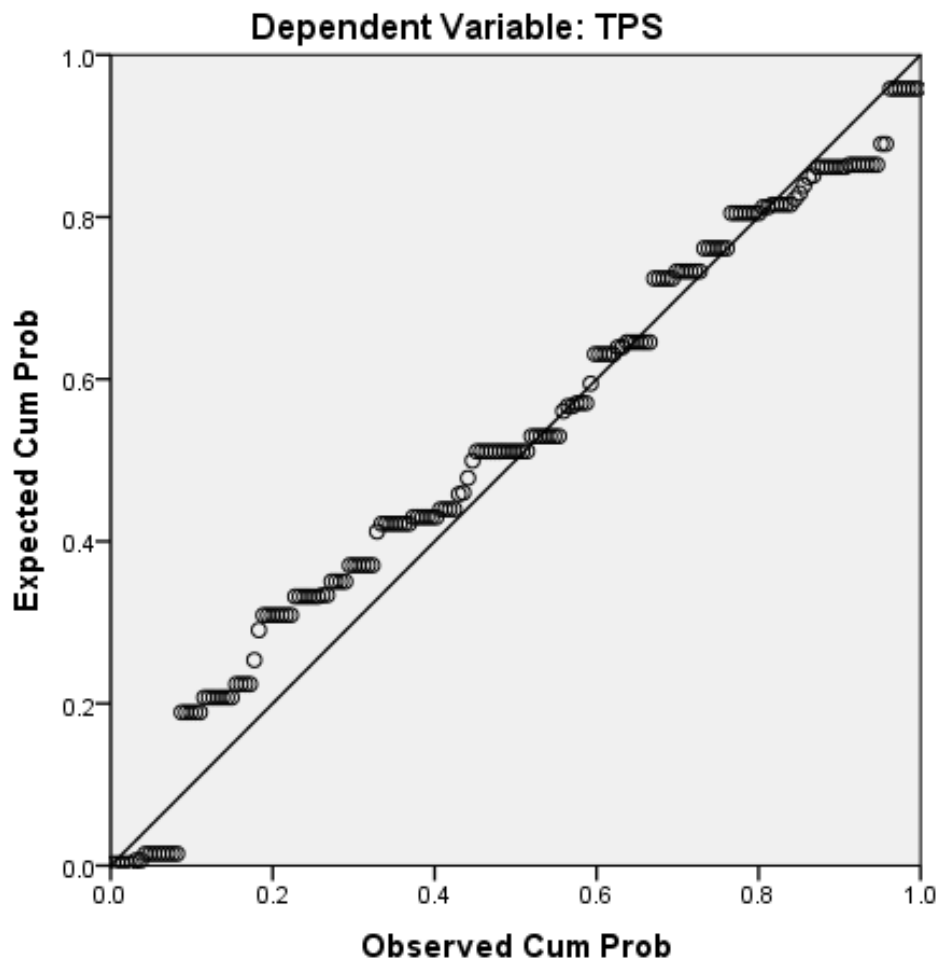
*Results of Regression Analysis*

Model	Unstandardized Coefficients		Standardized Coefficients B	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
(Constant)	-14.284	1.611		-8.867	.000		
Communication Skills	.657	.115	.273	5.733	.000	.416	2.406
Interpersonal Skills	.683	.130	.170	5.248	.000	.896	1.116
Coord Skills	1.035	.133	.417	7.754	.000	.327	3.055
Team Building Skills	.309	.129	.078	2.395	.018	.887	1.127
Problem Finding and Analyzing Skills	.741	.146	.254	5.080	.000	.377	2.650

R=.915, R Square = .837, Adjusted R Square= .833, F= 177.172,  $\alpha = 0.05$

a. Predictors: Communication Skills, Interpersonal Skills, Coord Skills, Team Building Skills, Problem Finding and Analyzing Skills

b. Dependent Variable: Project Success



Normal P-P Plot of Regression Standardized Residual

#### 4.5 Linear Regression Analysis and Testing of Hypotheses

Linear regression analysis was performed on five facets of project managers' soft leadership skills (communication, interpersonal, coordination, team building and delegation, problem finding, analyzing, solving) with a view to measure their individual contribution. Results of analysis by looking at t-test and beta coefficient, reveals that project managers' communication, interpersonal, coordination, team building and delegation, problem finding, analyzing, solving skills positively affect the project success. Most important factor project managers' coordination skills with max contribution, followed by communication skills and problem finding, analyzing and solving skills whereas, Project Managers' interpersonal skills and team building skills have relatively less contribution.

Multi collinearity and normality is not problem as is evident from Collinearity diagnostics and P-P Plot of regression standardized residual. Tolerance value is more than .10 and Variance Inflation Factor (VIF) is less than 10 for all factors. (Pallant, 2011). In P-P Plot of regression standardized residual, all points lie in a reasonably straight line from bottom left to top right. In scatter plot, the residuals is roughly rectangularly distributed.

Value of R-Square provided by regression model summary at table is 0. 837. R-Square represents that about 83 % changes in the project success are due to communication, interpersonal, coordination, team building and delegation, problem finding, analyzing, solving skills. This regression model is fit to apply as shown by significance value of .000 given by analysis of variance test (ANOVA).

Sig values of independent variables communication, interpersonal, coordination, team building and delegation, problem finding, analyzing, solving Skills are .000, .000, .000, .018 and 000 respectively. This reflects that these independent variables are significantly related with dependent variable.

Consequently, analysis affirms all hypotheses as under;

**H1.** The project manager's communication skills positively affect the project success. (Confirmed)

**H2.** The project manager's interpersonal skill positively affect the project success. (Confirmed)

- H3.** The project manager’s coordination skills positively affect the project success. (Confirmed)  
**H4.** The project manager’s team building and delegation skill positively affect the project success. (Confirmed)  
**H5.** The project manager’s problem finding, analyzing and solving skill positively affect the project success. (Confirmed)

*Moderation – Communication Skills (Moderator: Team Work)*

Steps	IV	DV	R2	F Stat	B	Beta	T value	Sig.
1.	TCOM(IV)	TPS(DV)	.631	301.479	1.908	.795	17.363	.000**
2.	TCOM(IV)	TTW(MV)	.573	236.274	1.276	.757	15.371	.000**
3.	TTW(MV)	TPS(DV)	.626	294.045	1.127	.791	17.148	.000**
4.	(IVxMV)	TPS(DV)	.706	422.797	.060	.840	20.562	.000**

\*\* Significance Level  $p < 0.01$

**4.6 Test of Moderation for Communication Skills (Moderator: Team Work)**

**Step 1:** Independent variable effect on dependent variable.

Table reveals that communication skills of project manager has a positive and significant effect on project success.

$R^2 = .631$ , which showed that there is 63.1% variation due to predictor (Independent) variable (TCOM).

$F = 301.479$  which shows that there is a strong relationship between independent variable and dependent variable.

$Sig. = 0.000$  which is less than 0.05 and  $t = 17.363$  which is more than 2, hence it is established that model is statistically significant, so this step accepted.

**Step 2:** Independent variable effect on moderating variable.

$R^2 = .573$  which shows that there is 57.3% variation due to predictor (Independent variable).

$Sig. = 0.000$  which is less than 0.05 and  $t = 15.371$  which is more than 2, hence it shows that model is statistically significant, so step 2 is accepted.

**Step 3:** Now we check moderating variable effect on dependent variable which is also significant with the  $Sig. = 0.000$  which is less than 0.05 and  $t = 17.148$  which is more than 2, hence it is established that model is statistically significant.

**Step 4:** Lastly and the product of  $IV * MV$  is taken as one variable and its effects on DV is determined and checked with DV.

$R^2 = .706$  which shows that there is 70.6% variation due to predictor variable which is independent variable x moderating variable, called interaction term. It has increased from direct effect of IV on DV, which was 63.1% to 70.6%, hence fulfils the requirement of moderation.  $F = 422.797$ , which shows that there is strong relationship between independent variable and dependent variable.  $Sig. = 0.00$  which is less than 0.05 and  $t = 20.562$ , which is more than 2 so it shows that model is statistically significant, hence step 4 is accepted as well.

Change in  $R^2$  is  $.706 - .631 = 0.075$  which means 7.5% change in association between communication skills and project success is caused due to team work. Hence, following hypothesis is confirmed.

**H6.** Team work moderates the relationship between communication skills and project success.

*Moderation –Interpersonal Skills (Moderator: Team Work)*

Steps	IV	DV	R2	F Stat	B	Beta	T value	Sig.
1.	TINPERS(IV)	TPS(DV)	.078	14.892	1.120	.279	3.859	.000**
2.	TINPERS(IV)	TTW(MV)	.099	19.354	.886	.315	4.399	.000**
3.	TTW(MV)	TPS(DV)	.626	294.045	1.127	.791	17.148	.000**
4.	(IVxMV)	TPS(DV)	.454	146.530	.079	.674	12.105	.000**

\*\* Significance Level  $p < 0.01$

**Step 1:** Independent variable effect on dependent variable.

Table reveals that interpersonal skills of project manager has a positive and significant effect on project success.

$R^2 = .078$ , which showed that there is 7.8% variation due to predictor (Independent) variable (TINPERS).

$F = 14.892$  which shows that there is a strong relationship between independent variable and dependent variable.

$Sig. = 0.000$  which is less than 0.05 and  $t = 3.859$  which is more than 2, hence it is established that model is statistically significant, so this step accepted.



**Step 2:** Independent variable effect on moderating variable.

$R^2 = .099$  which shows that there is 9.9% variation due to predictor (Independent variable).

$Sig. = 0.000$  which is less than 0.05 and  $t = 4.399$  which is more than 2, hence it shows that model is statistically significant, so step 2 is accepted.

**Step 3:** Now we check moderating variable effect on dependent variable which is also significant with the  $Sig. = 0.000$  which is less than 0.05 and  $t = 17.148$  which is more than 2, hence it is established that model is statistically significant.

**Step 4:** Lastly and the product of  $IV \times MV$  is taken as one variable and its effects on DV is determined and checked with DV.

$R^2 = .454$  which shows that there is 45.4% variation due to predictor variable which is independent variable x moderating variable, called interaction term. It has increased from direct effect of IV on DV, which was 7.8% to 45.4%, hence fulfils the requirement of moderation.  $F = 146.530$ , which shows that there is strong relationship between independent variable and dependent variable.  $Sig. = 0.00$  which is less than 0.05 and  $t = 12.105$ , which is more than 2 so it shows that model is statistically significant, hence step 4 is accepted as well.

Change in  $R^2$  is  $.454 - .078 = 0.376$  which means 37.6% change in association between interpersonal skills and project success is caused due to team work. Hence, following hypothesis is confirmed.

**H7.** Team work moderates the relationship between interpersonal skills and project success.

*Moderation – Coordination skills (Moderator: Team Work)*

Steps	IV	DV	R2	F Stat	B	Beta	T value	Sig.
1.	TCOORD(IV)	TPS(DV)	.708	425.948	2.089	.841	20.639	.000**
2.	TCOORD(IV)	TTW(MV)	.398	116.230	1.099	.631	10.781	.000**
3.	TTW(MV)	TPS(DV)	.626	294.045	1.127	.791	17.148	.000**
4.	( $IV \times MV$ )	TPS(DV)	.832	871.274	.072	.912	29.517	.000**

\*\* Significance Level  $p < 0.01$

**Step 1:** Independent variable effect on dependent variable.

Table reveals that coordination skills of project manager has a positive and significant effect on project success.

$R^2 = .708$ , which showed that there is 70.8% variation due to predictor (Independent) variable (TCOORD).

$F = 425.948$  which shows that there is a strong relationship between independent variable and dependent variable.

$Sig. = 0.000$  which is less than 0.05 and  $t = 20.639$  which is more than 2, hence it is established that model is statistically significant, so this step accepted.

**Step 2:** Independent variable effect on moderating variable.

$R^2 = .398$  which shows that there is 39.8% variation due to predictor (Independent variable).

$Sig. = 0.000$  which is less than 0.05 and  $t = 10.781$  which is more than 2, hence it shows that model is statistically significant, so step 2 is accepted.

**Step 3:** Now we check moderating variable effect on dependent variable which is also significant with the  $Sig. = 0.000$  which is less than 0.05 and  $t = 17.148$  which is more than 2, hence it is established that model is statistically significant.

**Step 4:** Lastly and the product of  $IV \times MV$  is taken as one variable and its effects on DV is determined and checked with DV.

$R^2 = .832$  which shows that there is 83.2% variation due to predictor variable which is independent variable x moderating variable, called interaction term. It has increased from direct effect of IV on DV, which was 70.8% to 83.2%, hence fulfils the requirement of moderation.  $F = 871.274$ , which shows that there is strong relationship between independent variable and dependent variable.  $Sig. = 0.00$  which is less than 0.05 and  $t = 29.517$ , which is

more than 2 so it shows that model is statistically significant, hence step 4 is accepted as well.

Change in  $R^2$  is  $.832 - .708 = 0.124$  which means 12.4% change in association between coordination skills and project success is caused due to team work. Hence, following hypothesis is confirmed.

**H8.** Team work moderates the relationship between coordination skills and project success.

*Moderation – Team Building and Delegation Skills (Moderator: Team Work)*

Steps	IV	DV	R2	F Stat	B	Beta	T value	Sig.
1.	TTB (IV)	TPS(DV)	.075	14.259	1.081	.274	3.776	.000**
2.	TTB(IV)	TTW(MV)	.074	13.987	.752	.271	3.740	.000**
3.	TTW(MV)	TPS(DV)	.626	294.045	1.127	.791	17.148	.000**
4.	(IVxMV)	TPS(DV)	.467	154.158	.076	.683	12.416	.000**

\*\* Significance Level  $p < 0.01$

**Step 1:** Independent variable effect on dependent variable.

Table reveals that team building and delegation skills of project manager has a positive and significant effect on project success.

$R^2 = .075$ , which showed that there is 7.5% variation due to predictor (Independent) variable (TTB).

$F = 14.259$  which shows that there is a strong relationship between independent variable and dependent variable.

$Sig. = 0.000$  which is less than 0.05 and  $t = 3.776$  which is more than 2, hence it is established that model is statistically significant, so this step accepted.

**Step 2:** Independent variable effect on moderating variable.

$R^2 = .074$  which shows that there is 7.4% variation due to predictor (Independent variable).

$Sig. = 0.000$  which is less than 0.05 and  $t = 3.740$  which is more than 2, hence it shows that model is statistically significant, so step 2 is accepted.

**Step 3:** Now we check moderating variable effect on dependent variable which is also significant with the  $Sig. = 0.000$  which is less than 0.05 and  $t = 17.148$  which is more than 2, hence it is established that model is statistically significant.

**Step 4:** Lastly and the product of  $IV * MV$  is taken as one variable and its effects on DV is determined and checked with DV.

$R^2 = .467$  which shows that there is 46.7% variation due to predictor variable which is independent variable x moderating variable, called interaction term. It has increased from direct effect of IV on DV, which was 7.5% to 46.7%, hence fulfils the requirement of moderation.  $F = 154.158$ , which shows that there is strong relationship between independent variable and dependent variable.  $Sig. = 0.00$  which is less than 0.05 and  $t = 12.416$ , which is more than 2 so it shows that model is statistically significant, hence step 4 is accepted as well.

Change in  $R^2$  is  $.467 - .075 = 0.392$  which means 39.2% change in association between team building and delegation skills and project success is caused due to team work. Hence, following hypothesis is confirmed.

**H9.** Team work moderates the relationship between team building and delegation skills and project success.

*Moderation – Problem Finding, Analyzing and Solving Skills (Moderator: Team Work)*

Steps	IV	DV	R2	F Stat	B	Beta	T value	Sig.
1.	TPF (IV)	TPS(DV)	.622	289.978	2.298	.789	17.029	.000**
2.	TPF(IV)	TTW(MV)	.321	83.047	1.158	.566	9.113	.000**
3.	TTW(MV)	TPS(DV)	.626	294.045	1.127	.791	17.148	.000**
4.	(IVxMV)	TPS(DV)	.777	612.177	.079	.881	24.742	.000**

\*\* Significance Level  $p < 0.01$

**Step 1:** Independent variable effect on dependent variable.

Table reveals that problem finding, analyzing and solving skills of project manager has positive and significant effect on project success.

$R^2 = .622$ , which showed that there is 62.2% variation due to predictor (Independent) variable (TPF).

$F = 289.978$  which shows that there is a strong relationship between independent variable and dependent variable.

$Sig. = 0.000$  which is less than 0.05 and  $t = 17.029$  which is more than 2, hence it is established that model is statistically significant, so this step accepted.

**Step 2:** Independent variable effect on moderating variable.

$R^2 = .321$  which shows that there is 32.1% variation due to predictor (Independent variable).

$Sig. = 0.000$  which is less than 0.05 and  $t = 9.1131$  which is more than 2, hence it shows that model is statistically significant, so step 2 is accepted.

**Step 3:** Now we check moderating variable effect on dependent variable which is also significant with the  $Sig. = 0.000$  which is less than 0.05 and  $t = 17.148$  which is more than 2, hence it is established that model is statistically significant.

**Step 4:** Lastly and the product of  $IV * MV$  is taken as one variable and its effects on DV is determined and checked with DV.

$R^2 = .777$  which shows that there is 77.7% variation due to predictor variable which is independent variable x moderating variable, called interaction term. It has increased from direct effect of IV on DV, which was 62.2% to 77.7%, hence fulfils the requirement of moderation.  $F = 612.177$ , which shows that there is strong relationship between independent variable and dependent variable.  $Sig. = 0.00$  which is less than 0.05 and  $t = 24.742$ , which is more than 2 so it shows that model is statistically significant, hence step 4 is accepted as well.

Change in  $R^2$  is  $.777 - .622 = 0.155$  which means 15.5% change in association between communication skills and project success is caused due to team work. Hence, following hypothesis is confirmed.

**H10.** Team work moderates the relationship between problem finding, analyzing and solving skills and project success.

## 5. Discussion

This study was conducted to identify the project managers' soft leadership skills that must be exercised effectively to ensure successful completion of the projects and to find out the impact of the team work on association between project managers' soft leadership skills and project success. Seven factors explored in this study had twenty eight constructs.

### 5.1 Communication Skills

First factor is communication skills and its impact on project success has been measured. In preceding literature, it has been established that if a leader is able to communicate clearly and conveys enriched task information to the team members, the expected outcome will be high team work effectiveness (Jetu and Riedl, 2012). Contrarily, if project manager is using a tactics and team members fails to grasp it, the likely outcome is not going to be as desired by the project manager. Earlier researcher has amply highlighted the need of project manager being a good communicator (Pysush, Dangayach and Mittal, 2011).

During current research it has been established that in Pakistan's context, project managers' communication skills positively affect the outcome of a project, which is in line with the findings of the earlier research done on the subject; though the contribution as indicated by this study is relatively small (12% only) as compared to other soft leadership skills.

Moreover, it has also been established that team work causes 7.5% moderation impact on association between communication skills and project success, which doesn't seems much.

Apropos, it implies that a project manager equipped with better communication skills will be able to get the better job done from the team members and consequently will be able to positively influence the projects' outcome.

**5.2 Interpersonal Skills.** Second factor is interpersonal skills and its impact on project success has been measured. Interpersonal skills implies project managers' ability to deal, motivate and persuade people with varying backgrounds (Low & Christopher, 2000). The more proficient a project leader or team member is in developing associations with his peers, the sooner he will know their capabilities and limitations and accordingly

can capitalize on them (Brenton & Levin, 2012). Positive impact of interpersonal skills on project has also been established by this study, which is in line with earlier findings as has been highlighted in the preceding literature review. Moreover, it has also been established that team work causes 37.6% moderation impact on association between interpersonal skills and project success, which is quite sizeable.

**5.3 Coordination Skills.** Third factor is coordination skills and its impact on project success has been measured. Coordination skills as enunciated in the literature review is the ability of the project manager to develop harmonious relationship not only with the team members, but also within the team. It also implies dealing with the conflicts arising with in the project and from outside (Brenton & Levin, 2012).

In current research, hypothesis regarding positive effect of coordination skills on project success has not only been confirmed, but a stronger value of Beta (42%) indicated the relative importance of coordination skills. It also implies that project manager must know where are the problems, how to control them through various mitigation strategies with a view to achieve the desired outcome.

Moreover, it has also been established that team work causes 12.4% moderation impact on association between coordination skills and project success, which is relatively weak; however a bigger sample size may alter this impact, but needs to be assessed.

**5.4 Team Building and Delegation Skills.** Forth factor is team building and delegation skills and its impact on project success has been measured. Teams are an important tier in successful execution of the project. If a project manager is unaware of the complexities of team working with him, doesn't know about their abilities, he is less likely to draw optimum advantage from their capabilities (Deepa & Seth, 2013; Shi & Chen, 2006). Moreover, owing to special chemistry of the projects; wherein a project manager is required to do a variety of tasks in time compressed environments, ability to correctly delegate the responsibility to team members assumes paramount importance (Shi & Chen, 2006).

It has been established that team work causes 39.2% moderation impact on association between team building and delegation skills and project success, which is reasonable strong and merits attention by individual of the project relate organizations.

**5.5 Problem Finding, Analyzing and Solving Skills.** Fifth factor is problem finding, analyzing and solving skills and its impact on project success has been measured. Problem finding, analyzing and solving skill implies that project manager is not only able to timely anticipate the problems, but through his power of analysis is able to find solution and devise strategies to mitigate these problems (Shi & Chen, 2006). As is evident from the results off this study that problem finding, analyzing and solving skills contribute about 25% in affecting the successful outcome of the projects.

Moreover, it has also been established that team work causes 15.5% moderation impact on association between problem finding, analyzing and solving skills and project success; however this impact may alter with change in sample size to a bigger sample, needs validation.

### **5.6 Organizational Implications**

This study suggests various soft leadership skills, which if properly exercised by the project managers, will leads to successful completion of the projects and ultimate beneficiary will be the organization. Practical implication for organizations related to project is to ensure setting of a mechanism wherein due importance is given in developing and exercising soft leadership skills so as to successfully complete the projects.

Following the above identified soft leadership skills by this study will provide organizations with key areas to focus and improve/ train project managers and team members to successfully execute projects.

### **5.7 Limitations and future research**

This research project is amongst few done on identifying and measuring impact of project managers' soft leadership skills on the project success. The findings from this study are not without limitation. First, the sample size was quite small as compared to the width and breath of the population available for subject study. Moreover the study only focused on selected organization from few areas.

Secondly, the study was based on cross sectional survey of the selected project related organizations instead of a single sector. Institutional/ sectoral differences in these specific types of organizations may have varying effects on the results.

In addition to the limitations cited above, future researcher may also venture in finding of the other leadership skills which have impact on the project success in relation to the one discussed in this study. Moreover, size of the project has not been taken into account while conducting this study. Bigger projects have their own complexities and may requires different set of soft skills than those described in this study; which may

be explored while taking into account the project size.

### 5.8 Conclusion

The objective of this study was to identify and assess the impact of project managers' communication, interpersonal, coordination, team building and delegation, problem finding, analyzing, solving skills on project success while concurrently assessing the impact of team work as moderating variable on association between project managers' soft leadership skills and project success. Six hypotheses were tested and all were accepted. The study amply highlights the importance of project managers' coordination skills and problem finding, analyzing and solving skills. It is hoped that results of this study will provide organizations and individual's related to projects with key skills especially soft leadership skills to focus and successfully execute the projects.

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