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TECHNOLOGY, ISLAMABAD



**Impact of Project Planning on  
Project Success: Moderating Role  
of Transformational Leadership &  
Mediating effect of Risk  
Management**

by

**Atta Ul Mohsin**

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

in the

**Faculty of Management & Social Sciences  
Department of Management Sciences**

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*This thesis is dedicated to my beloved Parents*



## CERTIFICATE OF APPROVAL

**Impact of Project Planning on Project Success:  
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Mediating effect of Risk Management**

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**(Atta Ul Mohsin )**

## *Abstract*

The study's goal is to look at the impact of Project Planning on Project Success, as well as the role of risk management as a mediating factor and Transformational Leadership as a moderating factor. The technique of convenient sampling was utilized for this. Questionnaires were used to collect data from 211 individuals (Team members) working in the IT project-based organization in Rawalpindi & Islamabad. To investigate the relationship, regression and correlation techniques were applied, which revealed that Project Planning had a beneficial impact on Project Success. The study's findings revealed that predictors have a considerable impact on response variables

**Keywords:** Project planning, Risk management, Transformational leadership, Project success.



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# Abbreviations

<b>PP</b>	Project Planning
<b>PS</b>	Project Success
<b>RM</b>	Risk Management
<b>SPSS</b>	Statistical Package for Social Science
<b>TL</b>	Transformational Leadership

# Chapter 1

## Introduction

### 1.1 Background of the Study

The most critical and important success factor in the project's success is project planning. Planning a project is designing the whole layout of the project in advance like a map of the project. Lack of project planning guarantees project delays which leads to project failures. Risk management is also the main Critical success factor (CSF onwards) in the success of the project. The most crucial parts in the project's success are the identification of potential risks, evaluations of their potential effects, and adequate mitigation plans. Proper project planning and risk management, when combined, have a substantial impact on the project's success (Alchammari et al., 2021).

Before the execution of the project the most important phase is planning which involves man , machinery ,resources ,sequence of the activities and risk identification before the start of the project. Management in any organization is responsible for the efficient use of Human resource & Machinery. The sequence of every activity and the risk involved with that activity, proper strategies designed for that risk is effective planning which leads to project success in any circumstance. Time spent in the project planning phase can save a lot of cost , can save a lot of time, can enhance project quality (Akinradewo & Aigbavboa, 2019).

For a project-based organization, project planning is critical because it leads to project knowledge integration, which leads to project success. According to the

study, efficient planning by the project team leads to the incorporation of new knowledge, which leads to project success. In the context of building projects, project planning is crucial, and it may be used to improve knowledge integration and ease project success. Project teams that generate efficient project planning are more likely to incorporate specialist expertise that encourages interdisciplinary individuals to achieve project success. (Yang et al., 2020). The first requirement for the correct execution of a plan is that it must be correctly planned in another way, even minutes of planning errors manifest as projects are delayed in different stages of a project. There are many factors that lead to unsuccessfulness of the project .

The most important factor which leads to project failure is the Doubtful project plan. There are many other factors which leads to project failure like poor site visit, lack of communication between subcontractors but the most important which has more chances of project failure is wrong project plan. It is like a map of the project if the map is wrong every step taken towards the goal will be in wrong direction (Sambasivan & Soon, 2007). Whole planning of the project should be well executed because project performance is dependent on it. Project planning process has direct impact on schedule of the project which in turns benefit early completion of the project or reduce project delay. Project delays is the international common problem in in the world, 70 percent of the large project got delayed in Saudi Arabia, so time spent at planning is can reduce project delays (Hwang & Leong, 2013)

Key project management tasks for project managers to find the best plan for a project, coordinating actions in an effective and efficient way, using limited resources (Brokman et al., 2018). Project manager most important duty is to make the project plan or design the map and follow the map until success of the project . The challenges that arise during the planning phase can have an adverse effect on the project's success. Although project planning does not guarantee project success, it is one of the most important CSF in project success. However, a lack of planning ensures that a project will fail. So its important to spend time at the planning phase to ensure the success fullness of the project (Dvir et al., 2003). Moreover, project success is highly dependent on two main things which is



control and project planning. Project planning is the core success factor in the project, one cannot reduce the loss in the execution or control phase if project planning is not up to the mark in the planning phase. Huge dependency on the planning phase of the project show that that it needs high importance if project success is needed. More over time spent at planning can minimize a lot of time in the execution and control phase of the project (Rodrigues et al., 2014).

Project planning has a major role play in successful execution of the project, it is being said that if the project planning is at faulty then the project success is only a dream. The input of project manager is very important towards project success if the project plan is accurate .The project plan is highly dependent on project managers performance, it has been observed in prior projects that a good project strategy is squandered during the project implementation phase. If the planning phase of the project is done correctly, a lot of time can be saved during the execution phase of the project. Now the projects in these days are mostly time bounded, the success is highly depended on timely execution of the project (Zwikael & Globerson, 2006). The project plan is the most important and technical phase of the project but if we did not build the proper team for the project the project will not go in the right direction. So with proper project plan with proper project team leads to success .It is seen in the project where project team is built in the planning phase has high margin of success. Unfortunately project planning is not only the critical factor in project success team building also plays crucial component in the project's success, Teams competence, team dedication, team goal centric are crucial credentials to ensure the project's success. Time comes when team changes the plan according to the situation of the project. Many critical factors plays important role regarding the success of the project like project planning but it needs a committed team to execute the project towards success (Thomas et al., ,2008).

Project management's main purpose is to make positive events more likely and have a greater impact. While lowering the negative events' likelihood and influence. Risk management is described as making decisions in order to achieve the highest level of security by minimizing the influence of foreseeable circumstances on a functioning economic unit. Project manager can not anticipate every move of

planning in the start of the project, customer changes in project goals can change the plan of the project. To be comfortable with change in the planning can ensure the project success.

Changes in the project plan effects the project outcome but managing that change and upgraded project plan can save the project manager and leads to success (Dvir & Lechler, 2004).Project planning is very important but risk management has equal significance. Many project get delayed due to low importance given to risk management .Proper control is needed in the execution phase to monitor the risk and to implement the strategy according to that which minimize the risk and leads to project success. Project planning leads to identification of risk which reduces uncertainty in the execution phase .To plan the uncertain even like risk in the planning phase reducing the cost and time in execution phase of the project which intern leads to success. Planning risk, risk identification, quantitative or qualitative risk, and a reaction plan are all part of risk management.

The final step in the risk management process is risk monitoring and control, which takes place during the project's execution phase (Zwikael et al., 2006).The risk connected with a project is referred to as "project risk." Risk management encompasses any uncertain circumstance that causes a project to be delayed, extend in time, rise in budget, or expand in scope. Risk management is a never-ending process that starts with strategy and ends with action, continues through the execution phase until the project is completed. To reduce risk, a variety of risk management approaches and instruments are employed. A lot of planning is done in the start of the project but still risk occurs and cause delay (Urbaski et al., 2019)

Risk assessment, which involves detecting, assessing, and prioritizing risks, and risk control, which includes risk management planning, risk resolution, and risk monitoring planning, tracking, and corrective action, are the two essential parts of Project Risk Management (Raz & Micheal 2001). Risk management focuses on preventing and reducing losses. Properly planned project will face certain kinds of risk either human resource either machinery related or other technical issues but risk management deals with coping those uncertainties at run time. Another critical issue is the construction of a danger early-warning system. Taking the

foregoing into account, risk management is a logically organized set of rules and regulations that are consistently and universally applied to the risks associated with the activities performed (Ostrowska & Mazur, 2015a).

Effective risk management does not refer to the risk being resigned, but rather to the risk being managed. Risk cannot be eliminated from a project; every new initiative entails some level of new risk. Because nothing can be planned in advance, dealing with risk is a vital success aspects. To summarize, project risk management does not entail noting down all the benefits and drawbacks or labelling each distressing and thrilling event as a "negative risk. Management is a multi-faceted, complex, and long-term process that begins long before the investment and can endure for years after it is completed." Risk management does not imply avoiding it; rather, it entails properly identifying it and evaluating the opportunities and risks that it brings (Szymaski, 2017).

Transformational leadership is the highly crucial factors in project success now a days .A leader is the one which gives direction, tells you what to do not how to do. Management on the hand know how to do it.

Transformational leadership is known for increasing the organizational commitment of employees towards the goal and organization. Transformational leadership enhances the motivation of employees to do the work with more passion which lead towards project success. A leader can see what the team cannot, it makes people believe that we can do it and on the other leader produces motivation in the team members so they can see what the leader demands from them. Transformational leadership creates the culture of innovativeness in the organization which leads to project success (Edin Strukan, Milan Nikoli, 2017). Transformational leadership creates a commitment between organizations and employees which leads to project success. Commitment is acting as mediator because transformational leadership mediates to commitment and commitment leads to project or organization success. The characteristics of temporary organizations appear to have an impact on project leadership effectiveness. We've attempted to expand leadership research in this approach in the past. In this context, we've outlined a number of issues that leadership research and practice should take into account while working with temporary organizations. In general, environmental unpredictability should be

assessed in terms of its implications on project leadership as an underlying basis for the employment of temporary organizations. The transferability of leadership research predictions in permanent organizations is particularly dependent on the individual extent and ratio of project characteristics (Tyssen et al., 2014a).

Transformational leadership is one of the most critical success factor as we know that it make team members believe that we are part of project not as a worker but as decision maker. When team members are involved in the project as their suggestions and recommendations are valued by the leader they work with more motivation and dedication which ultimately leads to project success. Transformational leadership creates an environment in the organization they people start to believe in them as core member or the project as if their work has concrete value to end of the project . Leaders make their followers believe that their input is highly likable and valuable which can increase motivation in the project members which leads to success (Doan et al., 2020).

The success of a project can be separated into two categories: project success and project management success. The success of project management is determined by the project management process, whereas project success is determined by a set of goals. All aspects of a project's planning, organization, monitoring, and control, as well as the motivation of all stakeholders to achieve project goals in a safe, timely, and cost-effective manner, are covered by project management. Project management is concerned with project performance in terms of short-term project success criteria such as time, cost, and quality targets, according to the definition. The "iron triangle" concept was the first model of project management success, albeit it has since been proven to be only a fraction of overall project success (Radujkovi & Sjekavica, 2017). The project manager's success criteria are based on the cost, quality, and time triangle, but the project manager's ultimate goal is to deliver business value, which necessitates the identification of a list of key success factors (CSF).The prediction and definition of success can only be done properly with a well-thought-out, customized collection of tools adapted to the current project; this summary focuses on a smaller section of the entire research on success. Only in possession of such a collection can a well-prepared professional give an opinion regarding the project's chances of success (Sebestyan,

2017). Project Success is a very critical subject because if the project is completed on time, on budget according to quality but it does not provide intended results in market, it will be considered as failure & just project management success not the only factor for project success (Dvir, Raz & Shehna, 2002).

The project's success is decided by the project's goals and benefits for the company as a whole, as well as the project's goals and benefits in terms of efficiency, and project management success is determined by the project manager's direct involvement. (Martens et al., 2018). Project success is measured as the stockholders satisfaction. Moreover the project success criteria depends on timely completion of the project, in budget, no increase in scope. Traditionally these are the things like time, cost, scope if a project meets that criteria is called a successful project. Project success criteria could be different but with effective planning and risk management that criteria can be achieved (Kishk & Okaga, 2008)

This research will be valuable at the organizational level, as the private sector consistently beats the government and public sector. The results will be good in terms of risk reduction if they implement the effective plan and meet the requirements by performing well. The effects of project planning, risk management, and transformational leadership on project success have been investigated.

Many studies on project planning have been undertaken, with risk management serving as a mediating component and organizational culture as a moderating factor. Transformative leadership, on the other hand, is a rare research that has a moderating influence. Our research will focus on project planning, with as a moderator, transformational leadership will discuss how transformational leadership might influence project success. The findings of this research will aid in the development of project planning and risk management skills, as well as transformational leadership capabilities, all of which are critical for project success.

## 1.2 Significance of the Study

The study's relevance, also known as the study's rationale, is critical in explaining why the research activity was essential to the reader. This research will look at the

impact of project planning on project success in the context of Rawalpindi and Islamabad projects. The majority of studies on the impact of project planning on project success has been conducted in developed nations or outside of Asia. The projects always involve the human and we know that human behavior and psyche differ region to region so it is not possible for the people to implement the suggested solutions in the local market to get the desired results. This research will help in reducing gap for identifying the main root causes of project delays in local market.

Project planning is the most important critical success factor when we talk about project success. Without the project planning the project success is just a dream. Project planning cannot guarantee success but no planning will guarantee project failure. Project planning plays a significant role in the project management and all aspects of diverse environments. Project planning is estimating and measuring in advance, risk management is plays a vital role in the success factor of the project. A good effective project planning leads to risk management, which means we are planning uncertain conditions in advance. Project planning merged with risk managed produces effective results in all cultures. Project risk management is vital in differrant organizations as a business cannot successfully identify its future goals without it. If an organization sets targets without taking risks into considerations, they are likely to lose control if such of these risks are encountered. Risk may come from internal as well as from external sources. External risk includes political issues, exchange rates, interest rate and are not directly controlled by management. On the contrast, internal risks may include failure, violation or break of data. Risk management is accessing identifying the challenges of the project in advanced and preparing strategies for it in advance will surely leads to success. Transformational leadership is used as a moderator, planning under quality leadership will enhance the percentage of project success surly. The influence of TL must be examined since transformational leadership is required to manage fraudulent actions that obstruct project completion on time and within budget. This study will help raise knowledge in Pakistan's development sector on how to use transformational leadership to achieve project success by building organizational team potency. Today's project manager is facing the challenge of maintaining decent environment

in organization. In this sense, the findings of this study will add to the body of knowledge about how good leadership may help improve team performance and project success. This study contributes in developing a mutually trusted environment through the practice of decent conduct by leader himself. Employee will perceive the leader as honest and just person and follow his steps which will increase their commitment to their organization and they will perform task associated with project with integrity which will result in project success.

This research will aid scholars and practitioners in reducing the likelihood of project failures and increasing the likelihood of project success, as well as creating a work climate where employees participate in and contribute to project success. Today, project management plays an important part in global competition because it allows us to handle a large number of problems in a short period of time, and it allows organizations to shift their culture to a project-based culture.

The study will help project based organizations to take knowledge about better planning, risk management and leadership helps achieve project success. As project failure in Pakistan is very common. Because we pay less attention on the project planning and risk management at planning phase .Under transformational leadership we can have improved results.

### 1.3 Gap Analysis

Gap analysis is a technique for discovering differences in a company's or organizations actual and expected performance. The "gap" is the distance between "where we are" (our current state) and "where we wish to go" (our ideal state) (the target state). A need analysis, need assessment, or need-gap analysis is another name for a gap analysis.

Project planning is the core thing when we talk about the project success. The starting point of the project is project plan but has an impact on the whole life of project. If things go wrong in project plan they will definitely has impact on project outcome. Project planning is the necessary process before the start of the project, while preparing does not guarantee success, a lack of planning does. The

project manager goal is to complete the project in time, in cost, with scope creep (Dvir et al., 2003). Prior to the planning, the other important aspect of project success is Risk management which at times get very crucial in the execution phase of the project. Risk communication in the execution phase has significance in the project, risk management is the capability to see the risk which will occur during the execution phase of the project. To identify and mitigate the risk is done at this phase of the project which interns leads to project success (Power, 2004).

Both project planning and risk management are essential success criteria for project success, and recent research has shown that planning and risk management have a favorable impact on project success (Alchammari et al., 2021). Researches like (Naeem et al., 2018) have statically proven the results in project based organization in Pakistan that project planning has a beneficial impact on project success.. Transformational leadership has been used as independent variable and showed positive results in project based organization as TL mediates psychological empowerment which in turn leads to project success(Farea, 2021).Positive impact has been seen between transformational leadership and organization commitment with mediating role of psychological empowerment in public sector organization (Avolio & ZHU, 2005). In the recent research it has been statically proved that In Ethiopia's private sector, there is a link between transformational leadership and project success, with team building playing a mediating role. A lot of research has been done on transformational leadership acting as independent variable and it showed positive results, as transformational leaders make the followers believe in their skills, it leads to self-efficacy which interns impact the project in positive ways (Yasin, 2019)

Project planning and competencies of individuals are the main area to target for the project success. A lot of importance should be given to the planning of the project by focusing on the major elements of the planning like scope, time cost, quality, communication, procurement and stakeholders. Moreover proper project planning helps a lot in execution phase of the project and can enhance the performance in the control and monitoring phase of the project. It has been seen that the main reason for the project failure is poor planning and individual competencies (Irfan et al., 2021). No project is risk free, it depends on the size and



volume of the project. The only strategy to tackle with risk management is to plan against it with proper tools and techniques. Risk identification is the first step in the risk management process. The personnel has to check whether the risk is under control or not. The second one is risk assessment, which refers to developing and recognizing the risk understanding the risk by combining the consequences and their likelihood.

Thirdly, risk response planning was made to create responses for identified risks. Responses are in the form of reducing the probability or diminish the impact of risk in the project. The last step is to control the risks through an effective risk response strategy (Rizwan, 2021) As projects increase in multidimensional nature and scale, it is necessary to give appropriate consideration to risk management, to run the projects smoothly and achieve the targeted objective in efficient manners. Project risk management is a continuous process of identifying, analyzing, organizing and eliminating risks that increase the project performance and helps in achieving success. Risk management can be useful for tracking project opportunities and maximizing the performance of the project. In Projects, risk management can assist the project managers in identifying and mitigating both the known and unknown”, and unknown and unknown” risks of all kinds(Aslam, 2018).

According to the literature, project leaders play a critical role in the successful execution of a project by ensuring that the project’s followers as a team, the requisite budget, and schedule are met. Project managers’ failure has a negative impact on the performance of project-based organizations. Although transformational leaders have an impact on organizational performance, their leadership style is also an important factor in project success. Transformational leaders engaged employees and informed all stakeholders of project developments and updates through efficient coordination and communication.

Transformational leaders also increase the motivation of their followers, forming a relationship between them (Raziq et al., 2018). A transformational leader encourages and supports team building, which leads to project success (Aga et al., 2016) .There is evidence that when there is a lack of transformative leadership, a substantial percentage of projects fail (Naeem & Khanzada, 2018).

The findings support the premise that transformational leadership has a statistically significant and favorable impact on the financial performance of the businesses studied. In general, transformational leadership emphasizes how managers can inspire, create, and implement substantial changes in their organizations in order to empower followers by guiding them to the changes, as well as improve the quality and efficiency of all business operations. Leaders must possess certain characteristics and skills in order to effect positive change: They must be a powerful role model for their followers (charisma), possess a well-developed set of moral beliefs, be knowledgeable and trustworthy, and understand how to build a vision and convince others to embrace and implement it (Edin Strukan, Milan Nikoli, 2017)

Many research in the private and public sectors have been done on project planning with the mediating role of risk management and moderating organizational culture. However, transformative leadership is a rare study that has a moderating effect. Our research will focus on project planning, with transformational leadership serving as a moderator, and how transformational leadership can influence project success. The results of this study will aid in determining if transformational leadership strengthens or weakens the relationship between project planning and risk management, thereby benefiting project success.

## 1.4 Problem Statement

A problem statement is a single or two-sentence description of the problem that your process improvement project will solve. In general, a problem statement will highlight the negative characteristics of the current situation and explain why this is significant. One of the most important functions of any problem statement is to accurately and precisely describe the issue at hand. Its purpose is to focus the process improvement team's efforts and impact the project's scope. Projects are typically multidisciplinary, which necessitates a large number of project management activities such as planning, scheduling, monitoring, and control. IT projects have posed new issues in the project management industry. It gradually increases the project's complexity, necessitating a great deal of preparation in the early

phases. IT firms nowadays spend a lot of money on the project planning phase since it may save a lot of time in the project planning phase. The project plan and risk management strategy are the most crucial things to have at the outset of the project (Vujovi et al., 2020).

Any project carries risks, thus it's a matter of successfully managing them to reduce their negative consequences. Risk refers to the chance of losing some of one's resources, under-revenue, or the introduction of new costs, as well as the opportunity of gaining large benefits (income) as a result of doing business in an uncertain environment. Risk management is a sort of activity aimed at reducing the impact of risk on an organization's, firms, or company's performance. What level of risk is acceptable to the business determines the most crucial decisions that an entrepreneur must make. It is not possible to eliminate or limit the consequences of all possible threats, the implementation of projects is subject to acceptable risky potential adverse events (Bashynska et al., 2020).

Transformational leadership is a style of relational leadership in which followers have faith and respect in the leader and are motivated to go above and beyond what is expected of them to achieve corporate objectives. Transformational leadership has four major components: Idealized influence (attributes and behaviors) depicts a manager who is an excellent role model for followers, establishes high standards of conduct, and can articulate the organization's objective to acquire followers' trust. The second aspect, inspiring inspiration, refers to a leader's ability to express a compelling purpose in words, symbols, and pictures. In achieving their utmost potential. Finally, leaders who practice individualized consideration, the fourth dimension of transformational leadership, pay attention to their employees' specific needs and try to train or mentor them so that they can reach their full potential (Boamah et al., 2017).

Project success is the ultimate goal of any project-based organization anywhere on the planet. Over the last few years, project research studies have explored and discovered a number of positive crucial success elements that help projects succeed. The factors which helps the project managers in achieving the project success are known as critical success factors. Project planning is the most significant critical factor which is used by many researchers to prove that it impacts project success

in a good way. Project planning is the most significant aspect of project success because it is just like a map, if one has wrong map one will definitely go in wrong direction. Risk management plays a vital role in the successfulness of the project in many ways when it is merged with project planning in a proper ways. Transformational leadership is that kind of leadership which creates intrinsic motivation in the team. The manager with traits of transformational leadership followed by the team members. Transformational leadership on the other hand plays a vital role in project success but its impact is checked directly on the dependent variable. In this particular study we are examining the impact of project planning on project success with the help of a mediator Transformational leadership plays a risk management and moderating role.

## 1.5 Research Questions

A research question is a concern or topic that can be researched and answered. It is the first stage of a research project. When you have a general notion of what you want to investigate, the research question is the first active stage in the research project. Because it is the cornerstone of where we are going, we must compose a great research question. Depending on this study's problem statement, the current research is aimed at seeking the answers to a few questions, as discussed below:

### **Research Question 1**

Does project planning impacts project success?

### **Research Question 2**

Does Project planning impacts Risk management?

### **Research Question 3**

Does Risk management impacts Project success?

### **Research Question 4**

Does Risk Management mediate the impact between Project planning and project success?

### **Research Question 5**

Does Transformational leadership moderate the impact between project planning and risk management?

## 1.6 Research Objective

In general, research objectives specify what we hope to achieve with a study. The study goals are typically presented in layman's terms and are addressed to both the client and the researcher. Research objectives could be linked to a hypothesis or used as a statement of purpose in a study without a hypothesis.

The major goal of this research is to determine the impact of project planning on project success in a project-based organization, with risk management as a mediating factor and transformational leadership as a moderating factor. Because other variables are regularly utilized and have produced positive outcomes, we are primarily interested in determining the impact of the moderator.

### **Research Objective 1**

To examine the impact of project planning on project success.

### **Research Objective 2**

To investigate the impact of projects planning and project risk management.

### **Research Objective 3**

To find the impact of Risk management and a project success.

### **Research Objective 4**

To find whether the mediating role is played by Risk management between project planning and project success.

### **Research Objective 5**

To investigate the moderating role of Transformational leadership on the relation between Project planning and Risk management between Project planning and Risk management.

## 1.7 Supporting Theories

The theoretical framework is one of the most crucial elements of your research dissertation. The theories that underpin your study are explained in this theoretical framework. It explains the research as a well-known concept. These ideas are

employed in your research dissertation to explain the phenomenon, develop connections, and make predictions. “The theoretical framework provides the “blueprint” for the entire dissertation inquiry,” according to Grant C. It serves as a road map for planning and carrying out your research, as well as a framework for determining how you will approach the dissertation as a whole from a philosophical, epistemological, methodological, and analytical stance. Your theoretical framework will be built on the foundation of your issue statement, research questions, and literature review.

The major goals of your dissertation’s theoretical framework are to define essential concepts, analyses and synthesize all relevant theories and models, and drive the research toward the assumptions and expectations that guide your research effort and dissertation. Theories and models describe why and how a specific outcome occurs in the first place. To justify your research, use the theoretical framework. Theoretical notions and models can sometimes aid in the development of research hypotheses. A hypothesis is a prediction that may be tested using the information gathered. Several theoretical perspectives have been offered by various scholars that are utilized internationally to underlie studies of project planning and project success, such as exchange theory and self-determination theory, but administrative theory may encompass all of the factors in the current study.

### **1.7.1 Social Exchange Theory**

This idea was developed by Thibaut and Kelley in 1959 and is widely used as a theoretical framework to investigate turnover intentions, job satisfaction & creativity (Sun et al., 2018). Effective leadership has become increasingly crucial in light of the increased interest in using work teams in enterprises. Work team supervisors must not only optimize individual contributions for organizational effectiveness, but also maintain their skills and talents for the competitive advantage of their organization. Indeed, social exchange theory has been used to underpin the implications of transformational leadership for critical work outcomes such as job satisfaction, task performance, helping behavior, creativity, job-related stress, and burnout, according to a review of research.

Transformational leadership, according to this line of research, is effective in involving subordinates in social exchange processes based on interpersonal trust, mutual loyalty, strong identification, and continual reciprocity with their superiors. As a result, subordinates feel obligated to repay their bosses and organizations in kind over time. It's crucial to comprehend how and why social exchange theory can be used to investigate the underlying mechanisms through which transformational leadership encourages employee retention. Employees have social exchange relationships with their immediate supervisors and/or the entire company. Employees' inclination to stay in their organization may be increased by strong identification, interpersonal trust, and mutual support between the employee and these two social entities (Tse & Chiu, 2014).

Employee motivation determines the total efficiency and effectiveness of employees, as well as the organization's overall performance. Demotivated personnel, on the other hand, do not put in any effort and, when given the opportunity, leave the workplace. Similarly, in the absence of incentive, personnel turnover rises, resulting in project failure. And his or her commitment and loyalty can be seen in their work and in their desire to stay with the company (Shah et al., 2018) . The social exchange hypothesis is more correct in explaining project performance since it assumes that good deeds and favorable attitudes between both employer and employee are a fair exchange of everything, resulting in less stress in the above mentioned topic. Such a relationship is built on trust and a sense of duty in the actual world. And this hypothesis simply states that employees are more likely to compensate with extra work that adds value to tasks.

The key principle of this approach is that both parties must work together to meet expectations and share benefits. Employee behaviors and dedication can also demonstrate employer support and organizational commitment. This benefit reciprocation represents a fair exchange of everything between the employer and the employee. As a result, as far as employee expectations are concerned, the turnover intention ratio remains low. Employees who have a positive perception of their leaders are more likely to shine light on organizational dedication, resulting in a long-term relationship between the two parties. Employees perform exceptionally

well in such circumstances, and their willingness to stay with the organization is strong.

To summarize this study, one may claim that SET establishes a strong link between a sense of compulsion (employee) and a sense of responsibility for what the employer has rewarded. Both parties must work together to meet expectations and share benefits, and this reciprocation of benefits represents a fair exchange of everything between the employer and the employee. Transformational leadership fosters an environment in which employees participate in decision-making, making them feel more confident and valuable to the organization, which leads to project success.



# Chapter 2

## Literature Review

Project planning refers to the creation of plans, schedules, estimates, and goals for completing and prioritizing work in order to complete the project on time, on budget, and according to customer specifications. An unpredictable occurrence or situation that, if it occurs, has a positive or negative effect on a project's objectives," according to PMI. Project risk management impacts are more diverse, overlapping monetary schedules, capability, quality, and engineering disciplines. The transformational approach to project leadership is seen as a positive role model by the project team. When project leaders adapt their leadership style to meet the needs of individual team members, the project is more likely to succeed. Project success has traditionally been defined as a project that meets its objectives on schedule and on budget. Efficiency refers to a project's ability to maximize its limited resources while maintaining positive relationships with both internal and external stakeholders.

### **2.1 Relationship Between Project Planning and Project Success**

The project's success is determined by where the project management process finishes, not when the project is handed to the customer. The real success of the project is not just timely completed or cost effective but how the customer

responds when its in use. There are five dimension of the project success one is project efficiency which did project meet schedule deadlines which also mean did project meet budget deadlines. Number two is Team satisfaction which mean team members growth, skill development and team morale. Number three is impact on customer which means customer satisfaction, fulfilling customer needs, solving customer problem and meeting technical specification. The fourth item on the list is "Business Success," which refers to commercial success and the creation of a huge market. The fifth step is to prepare for the future, which entails building a new market, a new product line, and a new technology.

Now as days success of the project is not just hitting the triple constraint like time ,cost and scope but it is more than that now they consider things like how satisfied the customer is , how much revenue it created in the market ,was it commercial success. Now its not about the job get done in triple constraint. Many researches agreed that project success is much more than just hitting the iron triangle like cost, time and scope extend project efficiency is connected with overall project success. Project efficiency is defined as that project is meeting the iron triangle which mean in cost ,in time, in scope .Project success includes other factors like risk ,customer expectation, business perspective (Serrador, 2015).

In particular, planning answers the following questions:

- What should be done? (activity)
- How events should be carried out! (methods)
- Who should do each lesson and by what means? (Resources)
- When should events be held? (Laufer & Tucker, 1987)

Project success is defined as meeting the stack holder & customer expectation with in the budget & with in the time. To complete the project according to the stack holder expectations, proper planning and execution should be done at the right time. Control mechanism is just used to monitor the process of planning and execution so if there are problems so we can solve it. Project plan is used as map for the execution phase. Planning and execution need to be on target

if the project success is needed. Poor planning lead to poor execution and poor execution lead to poor control mechanism. Failure in planning can cause a huge failure in execution phase, because the execution phase is entirely dependent on the planning phase. If the planning phase goes wrong it means the execution phase is wrong. The other process which is control mechanism is highly dependent on planning so if the planning is wrong then the monitoring checks are also wrong which will lead to chaos.

Plan is being used as baseline in the control phase of the project which monitors execution phase so much dependency on planning because it is acting like a map. At this stage it is highly important to figure out the plan because if the plan is faulty execution is faulty and there no control mechanism in the control phase of the project. Execution is entirely depended on planning and control is entirely dependent on planning (Globerson & Zwikael, 2002). Planning can be broadly characterized as an endeavor to affect the future by examining an organization's and its environment, formulating goals, and designing strategies to attain those goals. All organizations plan to some extent, even if only haphazardly and intuitively.

Strategic planning, on the other hand, is supposed to be explicit, rigorous, and methodical, and it entails the application of analytical tools to policy issues. For a variety of reasons, planning is seen to contribute to better organizational results.(Boyne & Gould-williams, 2010) Planning is essential for any firm in order to prepare for unexpected future situations, and businesses should approach the marketplace with a strategy in mind (Kapiyangoda & Karunaratne, 2019).

Previous research has identified project planning as one of the most important success elements related with project success in businesses. Project success would be harmed by poor project planning, a lack of coordination across project activities, and a lack of competency among the project planning team. Although a project plan in advance cannot eliminate all unforeseen occurrences, dangers, or uncertainties, having a strategy that includes threats is still preferable to having no plan at all. As a result, project managers' key problem is to keep the project plan on track, on schedule and on budget, while maintaining quality(Sekou et al., 2020).

Project planning is the name of process, there is no shortcut its a complete process, project success and project performance is highly dependable on project planning process. Planning is regarded as the most significant critical aspect in the project's success. Product success and project management success are both important components of project success. Project management success is defined as meeting the iron triangle, or finishing the project on time, within budget, and within scope. But product success is another things which relies on business success, the market revenue, the customer satisfaction. Risk associated with the project is called project risk. An uncertain condition that can occur at any time of the project which can cause schedule and budget overrun. A positive attitude and ready to learn approach can save a lot of disaster regarding risk management and planning .One cannot plan everything in advance the ready to learn & positive attitude approach is something that can be used in uncertain situation to avoid risk and changing plans .Better planning has produced results in the previous research that good planning leads to project success. More over if we consider project risk management during the planning phase of the project it can reduce a lot of time in the execution phase of the project (Urbaski et al., 2019).

There is evidence that project planning and control are not given enough attention; many projects are initiated without defined planning and control procedures, resulting in considerable cost and time overruns. Based on these findings, we propose the following hypothesis: The significance paid to project planning and control is connected to project success. The success or failure of a project is heavily influenced by planning and control (Rodrigues, Costa, & Gestoso, 2014). Project success is dependent on many reasons like project selection , project control, project supervision but the most important thing to be noted is project planning ,without proper project planning project success is just a dream.(Irfan et al., 2021)

Pre project planning is maximum strategic planning by which stack holders can access risk and depute resources towards project success. While project planning phase the main focus is on the project scope, on that basis the projects are selected by the organizations. Poor scope definition can disturb project planning phase which in turn can cause schedule delays and cost overrun. Pre project planning helps to reduce cost, time and improve quality of the project (Wang & Gibson,

2010). Most of the project success depends upon project planning and team building. It is being said no team can defend the flaws of planning phase and sometimes teams lead to failure of a good project plan. Technical aspect of the project is project plan but the project plan without a good team is not capable of producing well all the time or can meet the project objectives. Every project, project team, and project environment are all unique, hence the project requires unique project planning, unique control processes, and a unique team. Proper team building at the project planning phase is extremely beneficial to the project's success. A competent team is required for every unique project, and this should be done during the project planning phase. At the beginning of the planning phase, a team should be formed and responsibilities assigned; team development is an important aspect of the project plan that leads to success. (Thomas et al., 2008). The success of each project is measured in terms of time, budget, and scope. The project's success is contingent on effective planning. According to studies, poor planning leads to failure, and there is a correlation between project planning and success. Project planning is essential for project management and product development success. Effective project planning is critical to the iron triangle of cost, time, and scope (Tesfaye et al., 2017).

Researchers define seven planning steps: defining project objectives, identifying tasks, establishing precedence relationships, developing time estimates, estimating project completion time, comparing project schedule targets, and determining resource requirements. In project management, planning has been discovered to be a vital activity. Furthermore, in high-risk initiatives, planning to be more effective than in low-risk situations and the successful delivery of outcomes is a major problem in high-risk undertakings. As a result, planning focuses on techniques to dealing with uncertainty in the development of a product or service. As a result, good planning aids in the efficient delivery of project outputs, but because risk is high, little thought is given to ensuring the effective realization of long-term benefits. Because effective output delivery is more secure in low-risk initiatives, planning is less important for the efficient delivery of benefits. Furthermore, over-detailed planning might lengthen a project without adding value (Zwikael et al., 2014).



FIGURE 2.1: Relationship b/w Project Planning & Project success

According to an examination of project planning quality in numerous industries, construction and engineering organizations have the highest quality of project planning, both at the organizational and project manager levels. This is most likely due to the project-oriented structure of these companies.

Risk management is its major shortcoming, which could be attributable to a lack of managerial skills. Production and maintenance organizations, on the other hand, design their projects to be as low-quality as possible, maybe due to a lack of awareness of the basic distinction between project management and day-to-day duties. (Zwikael & Globerson, 2006)

Project planning is a continuous activity that occurs throughout the life of a project. As a result, project planning can be classified based on the project's degree of completion. Without a doubt, one of the functions of management is planning. It is the process that kicks off the management process and so serves as a requirement for other management activities like monitoring, evaluation, and control (Idoro, 2009). While it is hard to avoid all project changes, the essential message is that they should be kept to a bare minimum.

Goal changes and plan modifications have a strong and positive association, according to the investigated interactions between the planning variables; goal changes have a considerable impact on the frequency of plan changes. As a result, it is in the PM's ability to reduce the negative impact of plan changes by screening out all suggested objective changes to only those that are actually necessary for the project's success (Dvir & Lechler, 2004).

Hypothesis1. Project Planning has positive impact on Project success.

## 2.2 Project Planning and Risk Management

Uncertainty reduction is the major part of project planning process. Uncertainty leads to risks, different types of risk that can occur during the different phases of the project. It has been seen that high risk projects have been tackled well by a solid project plan. When we consider other process like quality and schedule planning with planning its easy to manage high risk projects (Zwikael & Sadeh, 2006). To plan the project while keeping in mind the future uncertainties, only risk management plan is not enough to deal with different types of uncertainties. Project Risk as not favorite event that will result in Delay, more cost, or unsatisfactory results. As mature project manager knows that there is no project which is risk free. Projects are unique and involve kind of uncertainties. Changes and competition in market, it is not just enough to make a project plan but also focus should be on project risk management plan. We cannot avoid risk its a natural factor so what we have to do is to make a plan for risk management which we defined as. Plans and better control systems are not only choice for the project success in this new dynamic environment but organization have to think about project risk and have to make plan how to cater Different kind of new projects have different kind of new risk which new to be catered by not one tool or technique or process. There is a need of new tools and techniques and process for every unique risk. More awareness more readiness more planning towards risk management can enhance project performance (Tzvi Raz et al., 2002).

Project management planning occurs almost as soon as the project's necessity is identified. The planning process begins with the project's selection and continues throughout the project's life cycle. When it comes to project management, there are three tiers of management decisions to consider. The most basic question is whether the project is in the best interests of the company's business, or, in other words, whether project objectives are aligned with the company's overall business goals. The decision on which project to pursue will have a big impact on the project's future viability and, to a large extent, its success. The strategic possibilities for the project are examined at the next level. Although the objectives would be to complete the project on time, on budget, and with the desired results

within approved organizational norms, there are a number of ways to achieve these objectives. At the third level, milestones, activity schedules, resource allocation, defect resolution, and other concerns are typically addressed. (Datta, 2001).

Major risk management planning is done at the planning phase, it has a deep connection at the planning phase and the uncertainties which are planned at the planning phase has a huge probability that project will not be disturbed with upcoming risks. For growth and development of organizations project uncertainty and risk are necessary part of the process. Profitability, efficiency and sustainability are impacted by the risk management process. Risk management process involve forward seeing, to plan about that uncertainty that has not yet came. Project planning is defined as a collection of instructions to the project team about what needs to be done, when it needs to be done, and what resources should be employed to meet the project's success criteria. (Zwikael & Ahn, 2011).

Risk is critical in the construction industry, which is infamous for its perils. The attainment of project objectives is hampered by risks. Risks can cause schedule delays, cost overruns, and safety and quality difficulties. Risk management is a systematic and orderly way of recognizing, analyzing, and responding to dangers throughout the lifecycle of a project. Identifying and assessing risk in sustainable projects during the planning phase adds a lot of strength to the project's success; second, a probability and impact check is necessary to deal with risk effectively. (El-Sayegh et al., 2018).

To manage high risk projects the best effective managerial tool is to improve project plan. In high-risk projects, the four dimensions of cost overrun, time overrun, technical performance, and customer satisfaction are well handled by enhancing project plans. To many high risk can cause project delay and cost overrun and leads to project failure. by implementing proper planning and control risk can be reduced to minimum level but it cannot be minimized. Risk should be identified in the planning phase and proper response plan should be made to cater with the risk. Risk management is a very healthy activity for project success (Zwikael & Sadeh, 2007). Project risk management plan is needed to identify the future threats that can affect the project and how to control that risk or minimize that risk. Different strategies are used to cater risk in different environment some



time eliminate or mitigate. Risk activity is not always comes with opportunity so negative impact of risk can affect the project time, cost, quality. Planning is half of risk management ,time spent at planning phase in a project which is more risky then a project which is less risky can help you save a lot of time during the project's execution phase (serpell, Ferrada & Rubio, 2019).

Adopting a multidisciplinary approach to project management demands paying attention to risk management as projects get more complicated and extensive. A basic hazard management tool can assist you in keeping track of your venture's prospects and increasing the likelihood of its success (Carbone, 2004). Determine what work has to be done, who will execute it, and when it will be completed as part of the system development process. Project planning, in particular, comprises calculating the amount of work, time, cost, and personnel resources needed to finish the project. Other actions, such as preparing the numerous deliverables and survey focuses in accordance with the periods of the improvement display, which is employed to provide the project a fundamental structure, are also required (Ratclif, 1987)

Project planning just is not enough to deal with different kinds of risk which can occur during the project but if we include some risk management activities in the project planning and some backups and resources then we can control the risk. Project Risk as not favorite event that will result in Delay, more cost, or unsatisfactory results. As mature project manager knows that there is no project which is risk free. Projects are unique and involve kind of uncertainties. Changes and competition in market, it is not just enough to make a project plan but also focus should be on project risk management plan. We cannot avoid risk its a natural factor so what we have to do is to make a plan for Risk management which we defined as. Plans and better control systems are not only choice for the project success in this new dynamic environment but organization have to think about project risk and have to make plan how to cater Different kind of new projects have different kind of new risk which new to be catered by not one tool or technique or process. There is a need of new tools and techniques and process for every unique risk. More awareness more readiness more planning towards risk management can enhance project performance (Tzvi Raz et al., 2002).

Plans are nothing changing plan are everything, because it is difficult to measure the exact time and cost related to that activity in the start and the uncertainty in the environment is also a major factor which is in the eyes of managers while planning , so planning is continuous process which need to be upgraded with time to get project success (Dvir & Lechler, 2004).Project planning is the process of making the plan setting the right direction for the followers and the teams but its not that simple to set the direction of the team in the time of future uncertainty and risk that a project will encounter in the future so project planning leads to risk management planning which leads to project success.



FIGURE 2.2: Relationship b/w project planning & Risk management

Project management has become more difficult as a result of information technology (IT) projects. Furthermore, project complexity is steadily increasing, necessitating careful and precise planning. As a result, many firms interested in IT initiatives devote half of their money to the project and schedule the project's completion time before it begins. (Vujovi et al., 2020). It is really important to plan every details of the project in planning phase of the project but its not just about planning ,things do not go smooth as we plan.

Proper risk management planning is also required with planning that if that activity is encountered to risk what are the strategies we will apply to mitigate, ovoid or control the impact of the risk. Activities are back and forth so delay in one activity due to risk can affect the next activity so proper planning of risk is required to ovoid such delays with proper risk management planning (Benedict, 2018).

Hypothesis2: Project planning has positive impact on risk management.

## 2.3 Risk Management and Project Success

Project Risk as not favorite event that will result in Delay, more cost, or unsatisfactory results. As mature project manager knows that there is no project which is risk free. Projects are unique and involve kind of uncertainties. Changes and competition in market, it is not just enough to make a project plan but also focus should be on project Risk management plan. We cannot avoid risk its a natural factor so what we have to do is to make a plan for Risk management which we defined as. Plans and better control systems are not only choice for the project success in this new dynamic environment but organization have to think about project risk and have to make plan how to cater Different kind of new projects have different kind of new risk which new to be catered by not one tool or technique or process. There is a need of new tools and techniques and process for every unique risk. More awareness more readiness more planning towards risk management can enhance project performance (Raz, shenhar, & Dvir , 2002).

For any size of the project researches elaborated that risk management is the key part of project. Risk management is very critical because it provide forward view of threats and opportunities. Risk management practices involve risk identification, risk analysis, risk response planning, and risk monitoring and control. Risk identification has a high effect on product performance.

Project success is the very important area for organization ,at first organization were only concerned with iron triangle which time cost scope but later on it was customer and stockholder satisfaction that matters .CSFs are very important for project success and failure. The most important CSF is risk management if neglected can cause in cost overrun, budget overrun, delays, unsatisfied customer, and unsatisfied stakeholder (Pimchangthong & Boonjing, 2017)

The process of identifying, analyzing, monitoring & controlling is defined as Risk management, so its becomes a process with sequential activities like identifying, analyzing, monitoring & controlling the project risk we can gather some new risk at the end of the project which can become known risk for the next project, by following this process we can reduce project failure. Risk management is a process

of sequence of activities which tells whether the uncertain situation will happen or not. If happen what are measures to reduce the risk. Evolution approach has been used that use the risk that are known ,by putting them into project it gives you more risk now these risk are known risk for the new project .This technique can increase project performance. Evaluation approach gives new information all the time when the known risk are put in current project.

New information can save a lot of time and cost which can lead to project success (Bakker et al., 2010). As different Researches have shed light on this subject that making plan is not enough changing plan is everything. Even an excellent plan can go wrong.

Whenever, one does not know about what will occur in the future then the uncertainty exists. Risk is uncertainty that has a potential of a loss. Conventionally when any one talked related to risk management, what approaches in mind was rather insurance, broker or auditor. Job related to the risk expert was not only to minimize the negative impact to its lower level.

It's also worried about the negative collisions of risk exposures (Butt S.A., 2014). Identifying the risk in sustainable projects and analyzing it in the planning phase gives so much strength to the project success, secondly probability and impact check is important to tackle with risk in effective manner (El-Sayegh et al., 2018)

Researchers in risk management are constantly focused on failures; however, before managing risks, we must first understand the types of hazards that could jeopardize the information system project. Knowing the different types of risks aids the project manager in developing a risk management strategy based on the most common risks. Technical and business risks are the two types of risks. Technical risk: the vendor package may not scale up as planned, or the project may become too difficult to implement (Ewer & Mustafa, 2008).

If a risk occurs, the project's objectives may be jeopardized. Managing the highest level of risk without highly specialized expertise carries the risk of damaging or jeopardizing the organization's reputation if the project fails. Also, if those are the real threats, PM will need to hire professionals to help him manage them (Mcmanus & Wood-harper, 2018).

Unexpected occurrences happen all the time in projects, and they can have either beneficial or bad repercussions that cause the project to vary from its original design. Positive outcomes lead to possibilities, whilst negative ones result in losses. The goal of risk management is to avoid financial loss as a result of unanticipated events. The risk management process comprises employing a structured technique to identify defects in product development procedures so that immediate mitigation efforts can be implemented to decrease risk, transfer risk, reduce risk likelihood, or reduce risk effect. It consists of seven iterative sub-processes: risk context, risk identification, risk analysis, risk evaluation, communication and stakeholder consultation, and risk monitoring and control (Ahmed et al., 2007)

Risk management allows project manager the right information before even the start of project to better estimate the cost and schedule plan a realistic one and help complete project on time, more over the risk which is not identified or mitigated earlier can cause a real problem for project success. Effective risk management is needed lead to project success. Two criteria were defined for project success first how efficiently and effectively one has used resources .secondly how satisfied was the customer.

Many projects fails because managers think that project will be successful but they do not give importance to the risk factor ,no risk identification, no mitigation plans for risk so project goes in failure direction. One of the most important critical success factor is identifying and analyzing risk and preparing a proper plan to cope with uncertainty (Kishk & Okaga, 2008)

Risk management is described as making decisions in such a way that they ensure the highest level of security by minimizing the influence of anticipated factors on a project. Therefore, Prevention and reduction of loss is the ultimate focus of Risk management. Risk management job is to hunt for threats and opportunity. Focus of risk management is to reduces and mitigate the losses which means less the losses more the project performance will be better. Risk management process is the core part of the plan because it shed lights on those problems that can come in the future but can be seen in current time .Better risk management lead to project success (Ostrowska & Mazur ,2014Risk management is a process of reducing the likelihood of negative occurrences while raising the possibility of positive events.

Risk management is a process of reducing the likelihood of negative events while increasing the likelihood of good events. (Bakker et al., 2010).

Risks and uncertainties come in projects because, a project is unique and therefore faces unknown Risk. Risk and uncertainties are the part of project because project mean something new or unique so it is understood that new challenges will be raised. Risk is an uncertain event if occurs may have effects on time, cost, scope of the project. Four types of uncertainty that can happen which can lead to project delay are variation, foreseen uncertainty, unforeseen uncertainty and chaos. Risk management activities contribute to project success via four different effects: action, perception, expectation and relation (Carvalho & Rabechini, 2015).

As different Researches have shed light on this subject that making plan is not enough changing plan is everything. Even an excellent plan can go wrong. Whenever, one does not know about what will occur in the future then the uncertainty exists. Risk is uncertainty that has a potential of a loss. Conventionally when any one talked related to risk management, what approaches in mind was rather insurance, broker or auditor. Job related to the risk expert was not only to minimize the negative impact to its lower level. It's also worried about the negative collisions of risk exposures (Butt, 2014).

Unexpected risk can occur during the execution phase of the project ,risk management is supposed to cater those risk with proper planning to avoid scope creep, schedule delays and cost overrun. Risk management effects project success instrumentally by creation of contingency plan or by effecting cost and time. Building team spirit is also one of the effects of risk management process. Risk is an uncertain event if occurs during the course of project can impact time, cost and scope of the project(deBakker et al., 2011).

As a result, preliminary risk management planning is thought to mediate project planning and success in the literature. The process of detecting, assessing, organizing, and eliminating dangers that lower the possibility of an activity's success in terms of cost, plan, quality, well-being, and specialized execution is known as project risk management. According to research, one of the most essential success aspects in a project is planning (Naeem, Khanzda, Mubashir & sohail, 2015)



FIGURE 2.3: Relationship b/w Risk management & Project Success

Hypothesis 3: Risk Management has positive impact on Project success

## 2.4 Risk Management as a Mediator

Failing to plan is planning to fail. That sounds right planning the project is the most important phase to get project success but its not just about planning the sequence of thing to get success its about planning the uncertainty of the environment, to identify the immediate risk at the time of planning, and to prepare a proper response strategies to minimize the loss. Risk associated with the project is called project risk.

Any uncertain condition which cause project to delay, increase project time or increase budget or increase the scope of the project lies under risk management .Risk management is an ongoing process which starts with planning and goes thorough execution phase till project closure. Many risk management techniques and tools are used to minimize the risk management .A lot of planning is done in the start of the project but still risk occurs and cause delay (Urbaski et al., 2019).

Deciding the most appropriate response lies at the heart of risk management, there are a lot type of uncertainties on which we have no control but planning those uncertainties can save a lot of time and cost. Risk management is a critical component of each project, regardless of its size, according to study. Risk management is crucial because it gives you a bird's eye view of potential risks and opportunities. Risk identification, risk analysis, risk response planning, and risk monitoring and control are all part of risk management procedures. The ability to

identify risks has a significant impact on product performance. Project success is the very important area for organization, at first organization were only concerned with iron triangle which time cost scope but later on it was customer and stockholder satisfaction that matters .CSFs are very important for project success and failure. The most important CSF is risk management if neglected can cause in cost overrun, budget overrun, delays, unsatisfied customer, and unsatisfied stakeholder (Pimchangthong & Boonjing, 2017).

Not every risk should be planned in the planning phase but it risk management plan should be updated in the execution phase, the response strategy and mitigation plan should be done at the execution phase of the project. Unknown risks are difficult to identify early in the project's life cycle, and a risk management plan prepared early in the project's life cycle will not be able to mitigate them. The researcher highlights that a contingency as a CSF can enable a project manager to control risks throughout the execution stage in order to handle unknown hazards, but the study solely considers the monetary value of contingencies. (Shayan et al., 2019).

Risk management not only just used for effective decision making of the project but also helpful in managing the stockholders expectations from the project making a common ground for the stakeholders. Risk management is a process of continuously decrease the impact of negative event on the project, the uncertainty of the environment is constant thing but to manage that uncertainty if its occurs lies at the heart of risk management (Bakker et al., 2010).

Project risk management is a continual process of identifying, assessing, coordinating, and addressing threats that affect an activity's chances of success in terms of cost, time, quality, safety, and specialised execution. Extensive risk management exercises are frequently seen as a "nice to have" on a project by associations and owners rather than a vital component of project controls. You'll need to put together a system of risk control capabilities to bring the risks under control once you've assessed the project's primary risk elements and their respective needs. The first stage in this process is to create a set of risk management plans that outline the measures needed to control risk variables and assure the project's or end product's smooth flow and completion (Boehm, 1991).



Risk identification and risk assessment are the important one at the planning phase of the project if assessed properly will lead to project success. Assessing the type of risk is important because it has positive relationship with project success, study shows the financial risk and designed risk harmed project success. Project success refers to timely completion of the project because timely execution of the project is directly proportional to low cost & market capture. Timely delivery of the project is a big competitive advantage over other companies (Rizwan, 2021). The likelihood and magnitude of the some risk are very high if did not managed at start can have severe consequence for the project. Risk management is highly interlinked with planning phase of the project in which to plan against the serious consequence of risk if it occurs. To plan to reduce the effect of risk when it happens lies at the heart of risk management. Planning the risk that can come in the future in the planning phase and selecting the technique either to avoid or mitigate in the planning phase can reduce a lot of time in the execution phase and avoid project delays (Urbaski et al., 2019).

The art and science of recognizing, evaluating, and responding to risk throughout the life of a project in the best interests of accomplishing project objectives is known as project risk management. Project risk management included identifying prospective project obstacles and how they can block project completion. Poor risk management has been identified as a prevalent factor of project challenges and failures in several studies. A key component of executing effective IT projects is risk management. Risk includes hazards risk which have only the negative outcomes, control risk which need to be managed in organization to get success without proper risk management plan success is just a dream for organization (Pimchangthong & Boonjing, 2017).

Elimination of risk is not possible but controlling of project risk is possible because risks of the project as the projects are inherently risky in nature and there includes four fundamental stages in RM that is identification of risk, planning, risk management, risk analysis and possible action. For identifying risk, the best way is to make an experts group and note down every detail that can favorably go wrong. In risk analysis, the most critical part is the estimation of impact and likelihood of the risk and scale of risk likelihood is based on low, medium, and high-measure

of risk whereas the impact of the risk can be measured in term of budgeting and project scheduling deviation. But simple impact specially is to think about the smallest impact level is one at first needs some kind of corrective action; a larger impact may require to turn over a new plan about how PM will bring that portion of the project or a brand-new strategy would be required to PM for delivery of the complete project or it could be worse like no expanse of planning or strategies would make it possible to accomplish the objectives(Bryson & Delbecq, 2007)

Without proper risk management project success is just a dream, it is proved in recent study that that there is no project without uncertainty ,to gain success it is needed to access the future risk at the start and make plan against those risk to reduce the impact of risk. Different strategies are being used by different companies, first they classify the risk and they make plan accordingly to get project success (asad ashfaq lodhi, Dr. rafique ahmed khan, 2019).

The third level of risk management is the risk management plan. It has more to do with PMs managing risk and putting together a risk management plan based on a few different working styles. These six strategies comprise risk elimination, likelihood curtailment, and decrease in risk impact, risk transferring, contingency planning and accepting risk. The final step in risk management is to put the plan into action as the PM would have the registered all risks of the project and plans on a risk register that if anything is minute important in project action plan that PM would have register of risk for it which turn out to be a part of the audit trial and hence, it is a management instrument which permits PM to keep track on project performance and to keep an eye on every risk of the project and obviously, whenever PM takes an action, he keeps a record of that action on risk log and monitors its impact on the project. If the action does not reduce the risk satisfactorily then analyze to come up for another plan and take additional actions (Ropponen & Lyytinen, 2000).

Managing the risk register critically is not sufficient, PM should act on plans and assign every risk to the named individuals (risk owners) and make them in charge of a particular risk and keep an eye to make sure that changes are made if PM do all the needful, risk management would become part of routine; and when PM do PRM well and efficiently as a part of daily routine of project management then

risks of the projects would be stayed in control of PM instead of let the risk control the project.

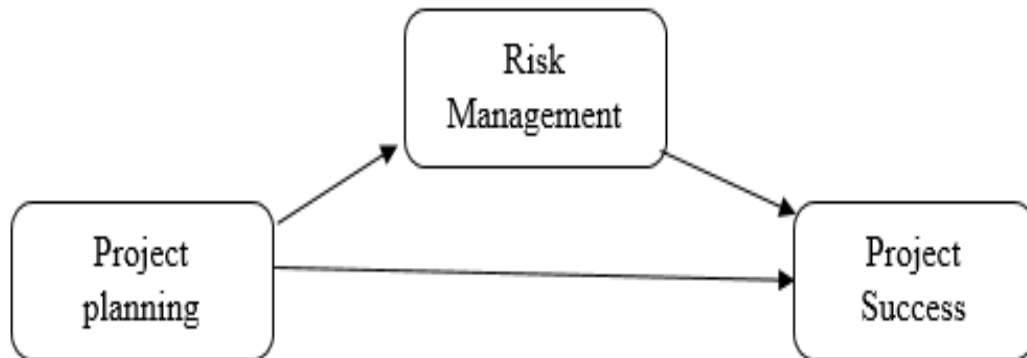


FIGURE 2.4: Mediation Effect of Risk management b/w Project Planning & Project Success

Hypothesis4: Risk management mediates the relationship between project planning and risk management.

## 2.5 Transformational Leadership Acting as Moderator

Transformational leadership (TL) is a style of leadership in which the leader motivates and inspires others to achieve their goals, Motivates his followers to incorporate changes by providing better working environment, Satisfaction of needs and new creative ideas and solutions to the problems. Leadership style really matters for success of project; past literature shows that various leadership styles impact in a different way towards success. The Study suggest TL enhance the performance, efficiency and Project Success. These leaders play significant role in the organizations at different levels, without effective leadership it is difficult to incorporate all the require changes. It is witnessed, this leadership style is different, unique and most effective among other styles as it helps to achieve the competitive advantage

around the globe in every discipline including project management. Transformational leadership is used in project-based companies, and the outcomes are excellent (Ghasabeh, Soosay & Reaiche, 2015). Transformational leaders, according to a meta-analysis, are more honest and confident, which is a good indicator of ethical work outcomes. Employees are also led by the leader, and their work reflects ethical and honest conduct (Banks et al., 2016). It is a leader's or managers major obligation to assist his or her team members and establish a welcoming environment in which they can polish and expand their abilities, allowing them to cope with modern problems and contribute to project success. (Anantatmula, 2010)

Project managers that use a transformational leadership style are more productive and effective at creating a work environment that fosters employee safety, care, and well-being (Boamah et al., 2017). The TL style is applicable at both individual and group levels, and it aids in motivating groups and individuals to match their goals with the organization's goals and objectives. In project-based companies, TL is related with an individual's perception of his leader, and this perception leads to project success and aids in the achievement of desired goals (Tse & Chiu, 2014)

Leadership plays an important role in leading people towards achievement of common goals. People are influenced by transformational leadership because it creates a vision, builds morale, and motivates them. It is witnessed that employee's turnover ratio can be reduced by TL style, such leader encourage employees, listens them and provide solutions to their problem and in return employees satisfaction level is enhanced. TL is highly recognized and focused as compare to other style (Sahu et al., 2018). Transformational leadership impacts organization commitment by empowerment of employees psychologically. Transformational leader works on four things of individuals Competence, Impact, meaning and self-determination. By working on Competence a leader make employee feel that he is competent for the job or task. By working on Impact leaders make individual feel that how his/her work impacts the organization benefits or goal in magnitude. Leader motivates and make certain environment for the individuals in which he/she can think critically about the problem. Other most important thing the transformational leadership can do is, he involves individual in decision making of the project in

which individual feel empowered thus he shows more commitment and that is vital for project success (Avolio & ZHU, 2005). TL has direct significant relationship with success of project. Leader motivate the followers which direct them towards the attainment of goals and objectives of organization and of employees themselves. If there is continuous motivation then it is chance of 90 percent project success and in case of lack of motivation the project failure is grantee(Andriani et al., 2018).

Employee performance is significantly influenced by transformational leadership. Transformational leaders' inspirational motivation has a favorable impact on staff performance in the region. As a result, it is suggested that company executives build positive contact and connections with employees, as well as attempt to motivate them to reach the firm's objectives. Second, the individual consideration component of transformational leadership has a positive impact on staff performance. As a result, home supervisors should encourage staff to follow their job responsibilities on their own. Managers should also be attentive about their employees' challenges and needs at work, and provide them with appropriate training to assist them improve their performance (Top et al., 2020).

Change commitment, openness to change, and readiness for change were found to have a positive relationship with transformational leadership, whereas change resistance and cynicism were found to have a negative relationship. In order to better understand how leaders support or hinder organizational change, this study underlines the importance of adding transformational leadership theory into the literature on change reactions. (Peng et al., 2021).

In project-based businesses, transformational leadership focuses on team development so that everyone understands the common purpose, interpersonal relationships, goal clarification, and problem-solving approaches that contribute to project success. Team building is a focus of transformational leadership, and team building acts as a mediator, resulting in project success. There are four important dimensions of transformational leadership. This begins with idealized influence, which is a powerful conduct that elicits strong follower feelings and affiliation with the leader. Leadership that inspires conveys a strong vision and raise expectations. Intellectual stimulation make followers more creative and innovative to problem

solutions. Individualized consideration mean giving support and encouragement to the followers. Transformational leadership motivates the followers in a way that they put all their energy and capabilities towards project success, like they are internally motivated to do the work no body is pushing or forcing them to do it (Aga et al., 2016).

Transformational leadership consist of three factors: Individual consideration, idealized influence, intellectual consideration and inspirational motivation. With all these factor transformational leadership create a proper atmosphere for employee, gave motivation when needed, and lead by example and these traits lead to project success. Many types of leadership proves success to the management but transformational leadership stands out as it has more percentage of project success. As planning affects the project success in a good ways but a committed project manager can affect the project in a best way (Doan et al., 2020).

A good Leadership understands the phycology of the followers First they seek to be understand then to be understood by understanding their employees nature and understanding their style of work , leadership make a strategy that is helpful in project progress which lead to project success(Rogo et al., 2020).

The transformational leadership idea explains how leaders can inspire their followers to "do more than they expected to do." Leaders establish an atmosphere where failure and mistakes are part of the learning process by allowing employees to express diverse points of view and exchange ideas, as well as giving them the freedom to experiment with new techniques (Henderson, 2016). Transformational Leadership (TL) is an innovative leadership style in which leaders emphasize individual attention, empower followers, provide intellectual stimulation, apply idealized influence, encourage progress, and employ inspirational motivation. Because of its superiority to other kinds of leadership, TL is widely accepted all around the world. The viability of unit performance improves under transformational leadership. TL can help organizations learn more effectively by utilizing motivational tactics (Kashif , Ilyas &Usman, 2016).

Transformational means transformation and for that we need leader, follower and supporters and the company for which they operate. Inspiration and motivation

comes from leaders and that is needed for project success. Definition of leader include charisma and idealized influence, high ethical standards are the traits of leader, motivation is also the trait of a leader and intellectual stimulation these traits spread a high energy in the environment that followers feels this energy and are more focused to the roles and goals (Ul Haq et al., 2020).

Definition of leader include charisma and idealized influence, high ethical standards are the traits of leader, motivation is also the trait of a leader and intellectual stimulation these traits spread a high energy in the environment that followers feels this energy and are more focused to the roles and goals. Transformational leadership is focused on more proactive approach not the passive approach .That kind of a leadership do not wait for the problem to occur. By proper monitoring and control they see the problem is coming so they can make plan accordingly. Other aspect of transformational leadership is that when a particular individual or a group achieve certain result a leader appreciates or gives financial reward to motivate the team and individual thats effects the performance of the team which is needed for both project planning and proper risk management and hence important for project success (Bass et al., 2003).

A leader's primary purpose is to demonstrate to his or her followers what they should be on the right path or direction and the motivation that requires to be on that path when hurdles or risk comes is the quality of good leader. To hear the unheard is the quality of good leader. Project success is highly dependent of leadership that can motivate their followers. To behave in an extra ordinary manner in a particular problem is trait of good leadership which interns benefits to those who are connected to project. Situational leadership is the trait of good leader in the world of new and dynamic changes in projects and uncertainties if a leader can understand the situation well and make a response according to that could be healthy prospect for business success .Different leadership styles are adopted according to the different situation and according to different environment in every organization can enhance project performance. Manger handling the project with the traits of transformational leadership has influence on the team. Transformational leadership is best defined as the one who raises the level of consciousness about the project goals and followers start owning that project,

putting their all into the project. Leader can motivate the followers to use their creativity, their intelligence if he can show them how important is the end goal .A good leadership engraves the vision of the outcome in the followers so deep that once its hit their sub consciousness action will flow without any monitoring on them to do the task (McCleskey, 2014).

Through their actions leaders talk and they stand with their followers for their needs, as the results followers give results. You can buys people hands but not their brain and hearts that what a leadership can do .Because in the heart where the love is and in brain where all the mental power is ,leaders lives in followers heart and mind (A & Ogbonna, 2013). Positive leader conduct plays a crucial effect in employee health and well-being, which should come as no surprise to most individuals. According to the research, transformational leadership and employee psychological well-being have a positive relationship in general.

In this area, studies are beginning to illustrate how transformative leadership and employee well-being are linked, as well as when this is most likely to occur. This dimension would be high for a leader with strong ideals who also acts in accordance with them. The second factor, inspiring motivation, is concerned with effectively expressing a positive vision and maintaining high standards. The third level, intellectual stimulation, entails being open to new ways of doing things and encouraging people to think creatively. Finally, the fourth component, individual consideration, is concerned with a leader that considers employees as individuals, spends time coaching and improving their talents, cares, and is sympathetic (Arnold, 2017).

Hypothesis5: Transformational leadership will moderate the relationship between project planning & Risk management

## 2.6 Research Hypothesis

**Hypothesis 1:** Project planning has positive impact on project success.

**Hypothesis 2:** Project Planning has positive impact on Risk Management.

**Hypothesis 3:** Risk Management has positive impact on Project Success.



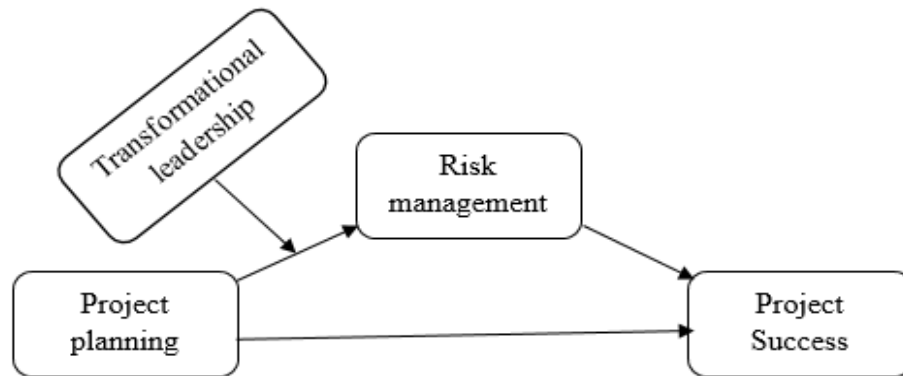


FIGURE 2.5: Research Model

**Hypothesis 4:** Risk management mediates the relationship between project planning and risk management.

**Hypothesis 5:** Transformational leadership moderates the relationship between project planning & Risk management.

# Chapter 3

## Research Methodology

This chapter discusses the methodology, procedures, and tools employed in this study in order to produce authentic results. This discussion focuses on the research design, sample methodology, sampling features, instruments, and the reliability of all variables and items in the study.

### 3.1 Research Design

#### 3.1.1 Type of the Study

This study demonstrates how project planning affects project success. In this context, IT project-based organizations in Rawalpindi and Islamabad have been targeted in order to gather the essential data for genuine findings. The study's goal was 350 legitimate results, however it ended up with 211. The sample chosen for this study represents the total population of Pakistan.

This will enable extrapolating the conclusions from the sample numbers to the total Pakistani population easier. In order to achieve the objective of the study, a cross-sectional survey will be carried out. Employees of project based organizations will be invited to participate in the study through email. Both the managers and the team members who carry out project-based activities will be included in the study.

$$RM_i = \beta_0 + \beta_1 PP_i + \beta_2 TL_i + \beta_3 PP * TL_i + U_i \quad (3.1)$$

$$RS_i = \beta_0 + \beta_1 PP_i + \beta_2 RM_i + \beta_3 PP * TL_i + \beta_4 TL_i + U_i \quad (3.2)$$

### 3.1.2 Research Philosophy and Quantitative Research

Previous research and ideas were used to demonstrate and support our hypothesis, which will then be empirically evaluated to ensure that the presented hypothesis is correct. Hypothetical deductive research approach based on determinism philosophy, in which prior research and current ideas were utilized to demonstrate and support our hypothesis, which was then empirically verified for verification. An anticipated description of scientific technique is the hypothetical deductive model or approach. Scientific inquiry begins by articulating a hypothesis in a way that can be convincingly falsified by a test using visible facts, according to this procedure. A test that contradicts the hypothesis's predictions is considered a falsification of the hypothesis. The theory is supported by a test that does not contradict the hypothesis. The next step is to compare the descriptive value of competing hypotheses by determining how strongly their predictions authenticate them. In order to reach a broad population, quantitative methods are commonly employed and respected. As a result, in this study, quantitative research was used to acquire high-quality data with the goal of connecting variables and displaying the nature of the relationship between the variables analyzed.

Quantitative methods are routinely used and respected in order to reach a large audience. As a result, in this study, quantitative research was used to acquire high-quality data with the goal of connecting variables and displaying the nature of the relationship between the variables analyzed.

### 3.1.3 Time Horizon

This is a cross-sectional study that looks at the impact of the independent variable (PP) on the dependent variable (PS) by looking at the mediator (RM) between

project planning and project success, as well as the moderating role of transformational leadership in the relationship between project planning and project success.

The information was gathered over the course of one month. From the beginning of June 2021 until the end of June 2021, questionnaires were delivered by using a Google form to collect participant responses, which were then transferred to an excel sheet for data analysis.

### **3.1.4 Unit of Analysis**

The unit of analysis is one of the most significant concepts in any research effort. The most crucial item to consider in your research is the unit of analysis. We're looking at the impact of project planning on project success, and we're looking at the mediating role of risk management and moderating Transformational leadership is the ability to change things for the better.

So, these are all human factors so the unit of analysis for this quantitative research are team members (Individuals) working in project-based organization.

### **3.1.5 Population and Sample Size**

A population refers to the complete group about which you want to draw conclusions. A sample is a subset of the population from which you'll gather information. The population of this research are the Managers and their team members working in IT project based organizations. People who have worked on a projects that has some unique scope and definite end time.

Project managers and their team working on IT based project in Rawalpindi and Islamabad. In order to achieve the objective of the study, the sample size for this research are collected from IT project based organizations whether project based or not. 211 authentic results are collected from 350 questionnaires were distributed.

Data was collected through online by distributing the questionnaire by email due to Covid-19 pandemic.

### **3.1.6 Sampling Technique**

Being cognizant of the fact that data collection from the entire population is often difficult due to various constraints, such as time and resource scarcity. The most prevalent method of data collection is sampling. A certain group of people is picked as real representatives of the entire population for this purpose.

In general, only project-based organizations in Pakistan were contacted for this study. The probability sampling approach was used due of time restrictions. As a result, probability sampling is the most appropriate technique to use in this study because data can be obtained from IT project-based organizations all over Pakistan, providing the most accurate picture of the entire population in proving the impact of project planning on project success with risk management mediation and transformational leadership moderation.

## **3.2 Measures**

For Project Planning Seven point Likert scale will be used 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 =neutral, 5 = slightly agree, 6 = agree, and 7 = strongly agree while for Risk management, transformational leadership and project success. Five point Likert scale will be used to measure the responses with 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree.

## **3.3 Instrument**

Each team member will fill the questionnaire individually. A questionnaire is a research tool that consists of a series of questions designed to collect data from respondents. Questionnaires are similar to written interviews in that they collect information. Questionnaires are a low-cost, quick, and efficient way to collect large amounts of data from a large number of people .The questionnaire will assess the impact of project planning on project success, using risk management as a mediating factor and transformational leadership as a moderating factor.

### 3.3.1 Project Planning

We adapted ten item project planning scale reported in Lapierre and Allen (2012, p. 1511) originally developed by Macan (1994).” 7 points Likert scale was used to obtain responses containing following points 1(Strongly Disagree), 2(Disagree), 3(Slightly Disagree), 4(Neutral), 5(Slightly Agree), 6(Agree), 7(Strongly Agree). 7 points Likert scale was used by the original author in order to obtain responses for this questionnaire. So, this scale was also used in this study to obtain precise responses from respondents.

When my team decides on what we will try to accomplish in the short term, we kept in mind our long-term objectives.

My team revised our goals to determine if they need revising.

My Team broke complex, difficult projects down into smaller manageable tasks.

My team set short-term goals for what we wanted to accomplish in a few days or weeks.

My team set deadlines for ourselves when we set out to accomplish a task.

My team looked for ways to increase the efficiency with which we performed our activities.

My team finished top priority tasks before going on to less important ones.

My team reviewed our daily activities to see where we were wasting time.

During the day, we evaluated how well we were following the schedule we have set down for ourselves.

We set priorities to determine the order in which we will perform tasks each day.

### 3.3.2 Risk Management

The questionnaire having five item risk management is adapted by (Karimi & Anol, 2007). The scale’s components are as follows: This project was managed using formal project management tools and techniques, the project’s scope, size, and work were accurately estimated, the implementation risks were properly assessed, categorized, and prioritized, and the implementation timetable was reasonable. The project’s project managers were quite capable and seasoned. The answers

are obtained by 5-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree).

Formal project management tools and techniques were employed for this The project's scope, size, and effort were estimated adequately.

The implementation risks were adequately evaluated classified, and prioritized.

The implementation schedule was realistic.

Project managers in charge of the project were highly capable and experienced.

### **3.3.3 Project Success**

In order to obtain precise and unbiased statistics, responses were obtained using this scale against items provided in this questionnaire. They can be done in person, over the phone, on the computer, or by mail. Aga and Vallejo (2016) created a project success scale with 14 items that measured the project success variable. A 5-point Likert scale was employed, with 1 (strongly disagree) to 5 (strongly agree) (strongly agree).

The project was completed on time.

The project was completed according to the budget allocated.

The outcomes of the project are used by its intended end users.

The outcomes of the project are likely to be sustained.

The outcomes of the project have directly benefited the intended end users, either through increasing efficiency or effectiveness.

Given the problem for which it was developed, the project seems to do the best job of solving that problem

I was satisfied with the process by which the project was implemented.

Project team members were satisfied with the process by which the project was implemented.

The project had no or minimal start-up problems because it was readily accepted by its end users.

The project has directly led to improved performance for the end users/target beneficiaries.

The project has made a visible positive impact on the target beneficiaries.

Project specifications were met by the time of handover to the target beneficiaries. The target beneficiaries were satisfied with the outcomes of the project. Our principal donors were satisfied with the outcomes of the project implementation.

### 3.3.4 Transformational Leadership

We adapted a transformational leadership measure containing 13 items Vinger and Cilliers (2006). The five-point Likert-type ranging from 1 (strongly disagree) to 5 (strongly agree).

Team members have complete faith in me

I provide appealing images about the project to my team

I enable team members to think about old problems in new ways

I give personal attention to a team member who seems neglected

Team members are proud of being associated with me

I let my team know that I am confident that the project goals will be achieved

I provide team members with new ways of looking at puzzling things

I help each member of the team to develop his/her strengths

I make the team members feel good to be around me

I help team members and meaning in their work.

I get team members to rethink ideas that they had never questioned before

I am attentive to the unique concerns of each team member.

I show my team that I am optimistic about the future of the project

## 3.4 Scales Summary

## 3.5 Scale Reliability

Reliability is a measure that how much consistent results we can get after repeated number of a test on a single item. In the case of scales reliability is ability of the scale that the scale will give same kind of results when run multiple times. In



Variable	Source	Item
Project Planning	Lapierre & Allen (2012)	10
Risk Management	(Karimi & Anol, 2007)	5
Transformational Leadership	Vinger and Cilliers (2006)	13
Project success	Aga and Vallejo (2016)	14

TABLE 3.1: Scales Summary

the current study the reliability test is run by the Cronbach Alpha method. By running this method, we can observe whether there is a link between the variables and their reliability also measure the ability to measure a single variable. The Cronbach alpha value that is considered to be significant ranges from 0-1 but in the case of Cronbach alpha in this range of 0-1 there lies regions of acceptable and unacceptable values of Cronbach Alpha. Usually 0.7 and greater value of Cronbach Alpha is considered to be acceptable value but in some case if the items to measure a variable are less than 10, we can use the range of 0.6 and greater as an acceptable range to carry on with our study. The greater the value of Cronbach alpha, the more reliable the scale will be, and the lower the value of Cronbach alpha, the less reliable the scale will be. In Table 3.2 below, for the scales used the Cronbach alpha values are mentioned. For Project Planning, Project Success and Transformational leadership the values of Cronbach alpha are greater than 0.8 making them a reliable scale to measure the variable in the contact of Pakistan while as the Cronbach Alpha value for Risk management is greater than 0.8.

TABLE 3.2: Scales Reliability

Variable	Cronbach alpha	Item
Project Planning	0.909	10
Risk Management	0.939	14
Transformational Leadership	0.849	5
Project success	0.934	13

### 3.6 Control Variable

In this study, we used one Way ANOVA test to check whether any demographic variables affect any main variable. Our results show that any demographic variable

does not impact our research. So demographics are not controlled in this research. Through the ANOVA analysis, the value of significance p for all demographics were above 0.05 which makes them insignificant in this study.

TABLE 3.3: Anova Analysis

Covariates	F value	Significance
Gender	0.377	0.54
Age	0.855	0.473
Experience	0.137	0.938
Qualification	0.647	0.587

### 3.7 Technique for Data Analysis

For the study under consideration the data was collected for 211 respondents, the analysis of data from the respondents was then done using IBM SPSS version 21. The data analysis was carried out using different number of procedures which are as follow:

1. In the rest stage of the analysis the questionnaire that were marked corrected were selected and if any ambiguities were present removed. All the questionnaires were given numbers so that when filling the data in the software we know which respondent gave what responses
2. Now we moved towards the software in which in the variable view tab we created all the variables and coded them in such way that PP (Project Planning), PS (Project Success), RM (Risk Management) and TL (Transformational Leadership).
3. Data was entered in the data view tab and we used the frequency tables to see that if any data slot is left empty or not and to see the characteristic of the sample.
4. The numerical values were used to conduct descriptive statistics.
5. Cronbach alpha was used to test the consistency of all the variables in the model.

6. After that we moved towards to see the correlation between the variables under study using the Pearsons Correlation.
7. After completing all of the tests to make our model appear study able, we went on to the regression analysis process. To test our hypothesis one, we ran a basic linear regression analysis between the Independent Variable (Project Planning) and the Dependent Variable (Project Success).
8. After testing our hypothesis one we moved towards testing our hypothesis two and three which corresponds to mediation and moderation by the Preacher and Hayes Process.
9. By the results from the regression analysis we checked the proposed hypothesis were accepted or rejected.

# Chapter 4

## Data Analysis and Results

The outcomes of the current study are presented in this chapter. In both narrative and tabular form, descriptive data, correlation analysis results, alpha reliabilities, and results from linear, mediation, and moderation analyses are presented.

### 4.1 Descriptive Statistics

Descriptive statistics displays the important information about the variables used in this research which are Project Planning, Risk management, Project Success and transformational Leadership. Descriptive statistics is the comprehensive summary of the whole data collected using survey. In descriptive statistics the values included are the maximum value, minimum value of all the variables also mean and standard deviation of each variable. Average of the responses is mean, and the change of responses from their mean is the standard deviation.

Table 4.2 shows the total sample size is 211 for the variables. Three variables were recorded using 5 point Likert scale in which 1 depicts strongly disagree and 5 is equal to strongly agree. PP having 7 point Likert scale. Averages of responses are described as mean value, the change of response from the respondents is denoted as standard deviation.

The mean of Project Planning is 3.76 and its standard deviation is 0.66. Value of Risk Management is 4.04 and its standard deviation is 0.57. The mean value

of Project Success is 3.83 and its standard deviation is 0.61. The mean value of Transformational Leadership is 3.38 and its standard deviation is 0.77 respectively.

TABLE 4.1: Descriptive statistics

Variables	Sample Size	Min Size	Max Size	Mean	Std. Deviate
Proj. planning	211	1	7	3.76	0.66
Risk Management	211	1	5	3.72	0.57
Proj. Success	211	1	5	3.83	0.61
Trans. Leadership	211	1	5	3.38	0.77

## 4.2 Sample Characteristics

The demographics used in this study are gender of the respondents, responders' educational attainment, the respondents' age group, the job sector of the respondents, the level of experience they have. The results from the demographics are as follow:

### 4.2.1 Gender

The purpose of the gender is to maintain a gender equality in our study and to see if any biasness exists with respect to gender of the respondents, the study was conducted in such a way to minimize the biasness of the study towards a single gender, despite this, the ratio of male to female responses was found to be higher. The data collected shows that from the 211 responses collected from the respondents 61.6% of the respondents were male and the percentage of female respondents was found to be 43.3%.

TABLE 4.2: Gender Distribution

Gender	Frequency	Percent
Male	130	61.6
Female	81	38.4
Total	211	100

### 4.2.2 Age of Respondents

Table 3.2 represents the age distribution of the current study sample. In this study total, valid respondents were (n=211), where 12 (5.7%) were from the age group of 18-25 years, 84 (39.8%) respondents are from the age group of 26-33 years, and remaining 72 (34.1%) respondents were from the age group of 34-41 Years age, whereas 43 (20.4%) respondents are from the age group of 42 above years, hence out of total sample size of 211 The higher percentage (39.8%) of current study sample has an age of 26-30 years.

TABLE 4.3: Age Distribution

Age	Frequency	Percent
18-25	12	5.7
26-30	84	39.8
30-35	72	34.1
More then 35	43	20.4
Total	211	100

### 4.2.3 Experience of Respondents

This Part contains information related to the respondent's experience. To make it easy for respondents so that they can easily respond to the demographic different ranges were provided. The range started from 0 years to more than 10 years. Table displays the experience of the respondent in their corresponding fields. Majority of respondents 38.9% had the experience 0-5 years. Other than that the experience comprises of 34.6% with 6-11 years' experience. 19.4% with 12-17 years and 7.1% with more than 18 years' experience.

TABLE 4.4: Experience Distribution

Experience	Frequency	Percent
0-5	82	38.9
6-11	73	34.6
12-17	41	19.4
18+	15	7.1
Total	211	100

#### 4.2.4 Qualification of Respondents

The importance of education can hardly be emphasized, it is a key factor that is considered crucial in the success of any nation. Education open up the horizon and help students become better human beings. So, it is also an important dimension of demographics. Table shows information related to the respondents qualification. According to our data 5.2% are intermediate passed. 44.5% people consists of people who passed bachelors. Majority of respondents had the qualification of master comprised of 45.5%. 4.7% respondents were PhD scholars.

TABLE 4.5: Qualification Distribution

Qualification	Frequency	Precent
Intermediate	11	5.2
Bachelor	94	44.5
Master	96	45.5
PhD	10	4.7
Total	211	100

### 4.3 Correlation Analysis

Correlation analysis is used to determine the strength and direction of a variable investigation. The correlation analysis is carried out to study the association between variables. In correlation analysis, direct and inverse connections are common, implying that associations can be negative or positive. A direct relationship demonstrates how a change in one variable might result in a change in another. Similarly decrease in one variable will decrease second variable. In inverse relationship increase in one variables will decrease the other variable and decrease in first variable will increase the second variables.

Pearson Correlation ranges is set between -1 and +1. Where -1 shows that perfect negative correlation exists between variables. +1 shows that positive perfect correlation is available in two variables which means increase in one variable will increase in other variable as well. 0 shows that variables have no association at all. They are not correlated. The reasons to do correlation analysis in this study was to

find out the relationship among Project planning and project success, Risk management as mediator and moderation of Transformational leadership to validate the assumed hypothesis:

TABLE 4.6: Correlation Analysis

Variables	1	2	3	4
Project Planning(IV)	1			
Project Success(DV)	.772**	1		
Risk Management(Med)	.757**	.858**	1	
Transformational Leadership(Mod)	.810**	.853**	.795**	1

Mostly researcher do not take into account the demographics of research while performing correlation analysis. The table shows that relationship exist between these variables by performing Pearson correlation. It is seen that there is a positive significant correlation between Project Planning (independent variable) and Risk Management (mediator) as  $r = 0.757$  and  $p < 0.01$ . A strong relationship exists between PP (Independent variable) and TL (moderator) as  $r = 0.810$  and  $p < 0.01$ . It also shows that there is a significant relationship between Project Planning and project success as  $r = 0.772$  and  $p < 0.01$ .

There is positive significant relationship between Risk Management and Transformational Leadership as  $r = 0.795$   $p < 0.01$ . A positive significance is also present between RM and PS as  $r = 0.858$ ,  $p < 0.01$ . Transformational leadership is significantly related to the project success as here  $r=0.853$  and  $p= 0.01$ .

## 4.4 Regression Analysis

To check the association and relationship between variable we performed Pearson correlation in this research, however we cannot completely rely on correlation analysis to show relationship. Correlation analysis does not show the complete insight into the level of relationship of variables, it doesn't provide strong evidence to support the association. As a result, regression analysis is used to confirm the relationship between two variables. Regression analysis demonstrates how reliant



one variable is on the other variable, or independent variable, on which it is being regressed. Simple and linear regression was conducted when our purpose was to establish a causal relationship and only two variables were involved for analysis.

When more than two variables are used in framework then multiple regression is carried out. Here we have the results of simple linear regression analysis. In this research, (Kristopher J. Preacher, 2004) For both mediation and moderation regression analysis, approaches were utilized. We utilized model 1 of preacher & Hayes to check moderation. In the (Kristopher J. Preacher, 2004) procedure, Model 4 for mediation is employed. Both processes are undertaken separately and the results are recorded.

## 4.5 Linear Regression

### 4.5.1 H1: Project Planning and Project Success

TABLE 4.7: Simple Regression

Predictor	Project Success		
	$\beta$	$R^2$	Sig
Project Planning	0.772***	0.59	0.000

*Un-standardized regression coefficient reported.  $N = 211$ , \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$*

Table 4.7 shows the analysis of our first hypothesis. First, we tested H1 that Project Planning have positive impact on project success. Results of our analysis showed that there is positive and significant relationship exist between project planning and project success. The  $\beta$  co-efficient is 0.772,  $R^2 = 0.59$  with the p-value = 0.00. The significance of  $R^2$  shows the coefficient of determination whereas  $\beta$  value shows the rate of change signifying that 1 unit change in project planning leads to 0.772 unit change in project success. The p-value of 0.00 indicates that these variables have highly significant relation with each other.

Hence, Hypothesis 1 is accepted.

## 4.5.2 H2: Project Planning and Risk Management

TABLE 4.8: Simple Regression

Predictor	Risk Management		
	$\beta$	$R^2$	Sig
Project Planning	0.757***	0.57	0.000

*Un-standardized regression coefficient reported.  $N = 211$ , \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$*

In H2 we made assumption that there is positive impact of project planning on Risk Management. The findings we get from regression analysis is present in Table 4.8. Our finding shows that project planning and Risk Management have positive and significant relationship with each other. The value of  $\beta$  co-efficient is 0.757,  $R^2 = 0.57$  and p-value = 0.000. The value of  $R^2$  is the coefficient of determination, whereas  $\beta$  value shows the rate of change shows that 1 unit change in project planning can bring 0.757 unit change in Risk Management. The p-value of 0.000 specifies that the association is very strong. So from our findings we can say that H2 is accepted.

## 4.5.3 H3: Risk Management and Project Success

TABLE 4.9: Simple Regression

Predictor	Project Success		
	$\beta$	$R^2$	Sig
Risk Management	0.858***	0.102	0.01

*Un-standardized regression coefficient reported.  $N = 211$ , \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$*

In Hypothesis H3 we assumed that Risk Management is positively associated with Project Success. The regression results of this hypothesis are given in Table 4.4.

Results of regression analysis revealed that there is positive and significantly strong relationship exist between Risk Management and Project success The  $\beta$  co-efficient value is 0.858,  $R^2 = 0.73$  with the p-value = 0.00. The value of  $R^2$  shows the coefficient of determination whereas  $\beta$  value shows the rate of change demonstrating that 1 unit change in Risk Management leads to 0.858 unit change in project

success. The p-value of 0.00 indicates that the relationship is highly significant. Hence, Hypothesis 3 is accepted.

## 4.6 Mediation Analysis Results

Mediation analysis is used to check to what extent Risk management mediates between project planning and project success. To check the mediators effect, we selected model 4 of Hayes Process macro through SPSS by (Andrew F. Hayes, 2013). In this we tested the path a, b, c and c'.

When we run preacher and Hayes process, we check these three effects of mediation: Total effect, direct effect and indirect effect

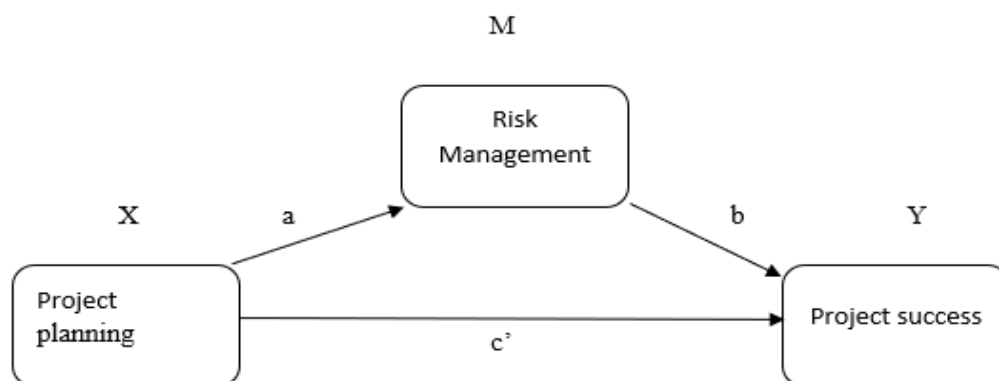


TABLE 4.10: Mediation Analysis

IV	Effect on IV on M (a path)	Effect of M on DV (b path)	Total effect of IV On DV (c path)	Direct Effect of IV (c path)	Bootstrap results for indirect effects	
					LLCI	ULCI
PL	0.797***	0.577***	0.459***	0.272	0.2785	0.6257

*Un-standardized regression coefficient reported. Bootstrap sample size was 5000. Confidence Interval = 95%. Sample Size 211 IV independent variable, DV Dependent Variable, M Mediator Variable, \* p j .05; \*\* p j .01; \*\*\*p j .001 LLCI = Lower Limit Confidence Interval; ULCI = Upper Limit Confidence Interval.*

Hypothesis 4 shows that RM will mediate the relation between PP and PS. The findings of the mediation analysis is given in 4.10, offers strong explanation. The

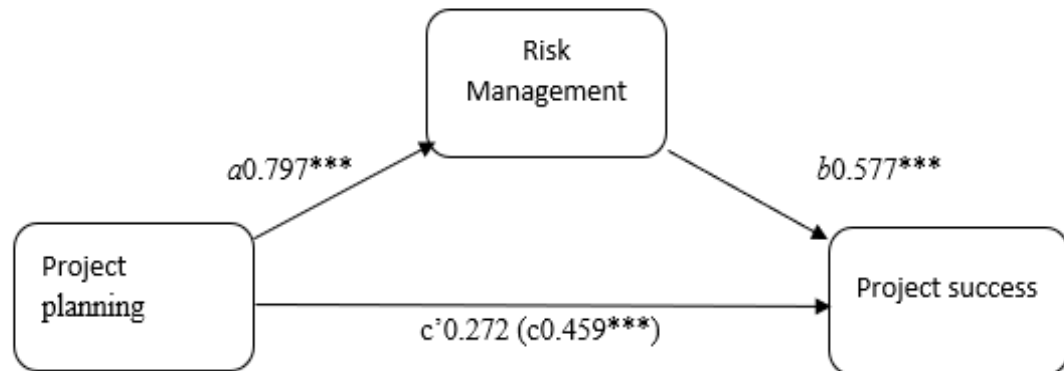


FIGURE 4.1: Mediation Analysis Results

table below describes that indirect effect of project planning on project success has the LL confidence interval and UL confidence interval of 0.2785 and 0.6257. Both the upper limit and lower limit has same signs, both are positive and there was zero value present between them. So we can see that strong mediation exists between independent and dependent variable. Hence, H4, was maintained, that Risk Management mediates the relationship of Project Planning and project success.

## 4.7 Moderation Analysis

To test our last hypothesis H5 which says that TL moderates the relationship between PP and RM, we used the moderation model 1 of PROCESS macro through SPSS (Andrew F. Hayes, 2013).

TABLE 4.11: Moderation Analysis

Variables	SE	T	p	Bootstrap results for indirect effects	
Constant	0.2705**	0.5559	0.487	0.628	-.8347 1.3758
Int Term	0.1170*	0.0471	2.484	0.014	0.0243 0.2098

*Un-standardized regression coefficient reported. Bootstrap sample size was 5000. Confidence Interval = 95%, N = 211, \* p < .05; \*\* p < .01; \*\*\* p < .001*

For moderation hypothesis was given. Hypothesis 5 states that TL moderates the association of PP and RM such that project planning makes a stronger positive relationship with risk management for project managers or members who have greater TL than those who work under low TL. Table 4.11, results provide an explanation for hypothesis 5. The reason is interaction term of Transformational leadership moderates on the relationship of Project Planning and risk management has the LLCI and ULCI of 0.0243 and 0.2098 and both have the opposite sign and zero value is present. Similarly, the interaction term specified positive and significant regression coefficient ( $\beta=0.1170^*$ ,  $p=0.0135$ ).

The finding shows that TL moderates the relation between Project Planning and Risk Management in a way that it make the association stronger, that when individual is provided with Transformational leadership they plan better and conversely manage project risks more efficiently. Hence, the results show that our H5 is accepted and it is proved.

## 4.8 Summary of Accepted/ Rejected Hypothesis

TABLE 4.12: Hypotheses Summarized Results

<b>Hypotheses</b>	<b>Statement</b>	<b>Status</b>
Hypothesis 1	There is positive impact of Project Planning on project success	<b>Accepted</b>
Hypothesis 2	There is positive impact of Project planning on Risk Management	<b>Accepted</b>
Hypothesis 3	There is a positive impact of Risk management on project success	<b>Accepted</b>
Hypothesis 4	Risk Management mediates relationship between Project Planning and Project Success	<b>Accepted</b>
Hypothesis 5	Transformational Leadership moderates the relationship between Project Planning and Risk Management	<b>Accepted</b>

# Chapter 5

## Discussion and Conclusion

This section of the paper deals with a thorough examination of the hypothesis developed with the help of literature, as well as the explanation of the findings using theory and empirical evidence.

The study's goal is to see how project planning affects project success, with risk management as a mediating factor and transformational leadership as a moderator. In this section of the study, we will compare the findings of this study to those of previous studies.

The research's goal is to see how project planning affects project success, and the data for this study was gathered from team members from project-based IT organizations.

The reliability of all variables showed in table 3.6 against all variables is identified including the value of Cronbach alpha of Project planning 0.909, Project success 0.934, Risk management 0.939, and Transformational leadership 0.849.

Project planning, project success, Risk management and transformational leadership Cronbach alpha is larger than 0.7.

As a result, everything is trustworthy. The study's findings revealed that project planning has a favorable and significant impact on project success.

Risk management has influenced project planning and success in a favorable and important way. Between project planning and risk management, transformational leadership moderated.

## 5.1 Discussion

### 5.1.1 There is a Positive Relationship between Project Planning and Project Success

Hypothesis 1 was proposed by the author to study the impact of project planning on project success. According to this concept, project planning and project success have a positive and necessary link. The author executed a simple linear regression test to analyze this hypothesis and checked the Pearson correlation value that defines the association between variables that are either strengthened or weakened. If the Pearson correlation beta value is around 1” then there is a high relation between variables, if it’s on the negative side then there is an opposite correlation and near-zero on the positive side shows weak relation between variables. The correlation in this research among project planning and project success is beta value=0.772\*\* p<.001. This shows a positive and significant correlation between the independent variable’s project planning and dependent variables’ project success. The independent variable’s project planning was to calculate the project success variables, beta value =0.772 states that it will bring positive variance in project success as if one-unit change comes in project planning it will bring 77.2% variance to the project success.

Variation, anticipated uncertainty, unanticipated uncertainty, and chaos necessitate extensive planning prior to the commencement of the project. Unforeseen uncertainty and chaos can be prepared for before the start of the project, and a contingency plan can be developed before the start of the project, but they require different techniques to deal with (Meyer, 2002). The project scope which is the most important activity in the planning phase of the project is highlighted in this research, the author has highlighted the fact that from the top five CSF in the context of project success one of the most important thing to consider while planning is the scope of the project. A lot of time is wasted in the execution phase because not enough time is spent in the planning phase of the project on the scope of the project (Songer et al., 1997). The author has highlighted how project planning and control has a positive impact on project success out of the ten most CSF in

the context of project success. In the realm of project management, one of the most essential success factors is project planning (Kuen et al., 2009).

Because it is vital for project planning at the onset, the project manager cannot be divorced from the organization's strategy and long-term planning (Shenhar, 1997). Project success is comprised of two primary processes: project management and product development. Project planning should be done in such a way that it first meets product success and then meets project success. Product success is important, but neither is more important than the other, and neither can be sacrificed (Baccarini, 1997).

The main idea is that successful project execution necessitates the development of a set of action plans and processes. The project's principal purpose, timelines, and other target milestones, as well as the degree and type of customer contact, are all determined during the planning stage. Building control systems to monitor and offer feedback on the project development process' efficacy, as well as establishing the project's technical capabilities, recruiting and training personnel, and establishing the project's technical capabilities are all tactical parts of a project. During the course of a project, both planned and tactical actions must be carried out. During the course of a project, both planned and tactical actions must be carried out. Over the course of a project's life cycle, the amount of attention paid to planning and tactical operations varies. This influences the project's success.

Project planning is vital for project execution, and good planning leads to successful implementation (Prescott, 1990). To achieve the iron triangle of cost, time, and quality, project planning necessitates the use of unique project management tools and methodologies. Only a few project-oriented businesses, such as building, engineering, and defense, use specialized planning, monitoring, and control approaches.(Cicmil, 1997).

Our findings are consistent with research conducted in various parts of the world, indicating that planning is critical for reducing the risk of project delay, or that bad project planning will cause the project to delay, and is one of the key reasons of this effect. To make a product development successful, both planned and emergent activities must be used at the same time (Lewis et al., 2002).



### 5.1.2 There is a Positive Relationship between Project Planning and Risk Management

Hypothesis 2 was created by the author to study the impact of project planning on risk management. According to this concept, project planning and risk management have a beneficial association. The author executed a simple linear regression test to analyze this hypothesis and checked the Pearson correlation value that defines the association between variables that are either strengthened or weakened. If the Pearson correlation beta value is around 1” then there is a high relation between variables, if it’s on the negative side then there is an opposite correlation and near-zero on the positive side shows weak relation between variables. The correlation in this research among project planning and risk management is beta value=0.757\*\* p<.001. This shows a positive and significant correlation between the independent variable’s project planning and dependent variables’ project success. The independent variable’s project planning was to calculate the risk management variables, beta value =0.757 states that it will bring positive variance in project success as if one-unit change comes in project planning it will bring 75.7% variance to the Risk Management.

An organization’s risk management strategy must become ingrained in its culture. The focus of approval must be on identifying the flaws in a notion or strategy. Risk assessments are more likely to be used effectively to reduce financial or physical risk when they are commissioned in response to a justified and particular requirement for data (Nkoka & Waalewijn, 2014). The responsibility of risk management for catching advantages, like the Input Transformation Output demonstrate, should be assigned to a specific individual (Zwikael & Smyrk, 2014).

The venture manager should be in charge of seeing that the venture opportunities come to fruition as planned, but not of collecting the normal advantages. In project management literature and, more crucially, in project managers’ thoughts, project success has remained a hazy term. Extend goals have typically been depicted as a triangle with three axes: time, cost, and quality. This is an excellent instructional and pedantic tool since it clearly demonstrates how changing one component impacts the other two (Slevin & Pinto, 1986).

Planning has been identified as one of the most critical contributors to project success in numerous empirical studies of project management success factors (Murphy et al., 1974). The triangle is an overly simplistic figure that makes it difficult to discuss the associated destinations of most vocations, as well as the fact that individual desires and sentiments of the entire population should be considered (Briner et al., 1993). In this way, from a management standpoint, delegating a portion of the duty for benefit recognition is possible (Zwikael & Smyrk, 2015).

### **5.1.3 There is a Positive Relationship between Risk Management and Project Success**

By checking the research model with Pakistan in mind, Hypothesis 3 was proposed that there is a positive relationship between risk management and project success. Risk management is related to project success in a positive way, which is correct according to the idea. The research performed demonstrates us that there is support for the significant effects of the hypothesis.

The results showed that project risk management has a significant influence on project success and helps it to boost if the risk management is carried out correctly. It is widely seen that the more the risk management the more is the quality of a project and vice versa. In the background of Pakistan, risk management is directly related to project success. This analysis is in line with the study performed by various researchers in this area.

Hypothesis 3 was proposed by the author to study the impact of risk management on project success. Risk management and project success, according to this concept, have a positive association. The author executed a simple linear regression test to analyze this hypothesis and checked the Pearson correlation value that defines the association between variables that are either strengthened or weakened. If the Pearson correlation beta value is around 1" then there is a high relation between variables, if it's on the negative side then there is an opposite correlation and near-zero on the positive side shows weak relation between variables. The correlation in this research among risk management and project success is beta value=0.858\*\* p<. 001. This shows a positive and significant correlation between

the Risk Management and dependent variables' project success, beta value =0.858 states that it will bring positive variance in project success as if one-unit change comes in Risk Management it will bring 85.8% variance to the project Success .

Project risk is the frequently viewed as a result-oriented notion. It is most typically used to represent a project's potential for failure. It is more likely to be an errand or goal-oriented concept in the meantime (Turner, 2006). Project risk is prioritized in proportion to the framework's assignments and goals. A project risk is a potentially unsettling influence that could produce variations from pre-determined framework targets, such as arrangements, quality, and effects, among other things.

According to the literature, the ability to diverge from pre-defined goals is a commonly recognized importance of project risk (Zou et al., 2007). A project risk is defined as "an uncertain project chance event or circumstance that, if it occurs, has a positive or negative impact on a project's targets." (Duncan, 2005). "Successful project completion depends to a great extent on the early identification of immediate risks" (Datta, 2001).

Although there are many elements that impact whether or not a project will succeed, it appears that neglecting to implement proper risk management will raise the likelihood of disappointment. Threats appear to fit the proverb "failing to plan is planning to fail."

It is critical to have a persuasive strategy for preparing for and managing extend risks that is simple to understand, use, and implement for the project team (Carbone, 2004). Risk management has a significant influence on project budgets, delivery time, efficiency, project quality, health and safety, and environmental sustainability (Akinbile et al., 2018).

The considerations should be handled by the project organization as early as possible, because the distance, cost considerations and consistency is found to be mainly administrative activities which should be until tendering or construction to complete in the design process. Hence, the project manager needs to consider and change the dealing separately with the influence of each aspect of project (Larsen & Ditlev, 2016). New technology will be introduced by the contractor; and develop

effective risk management team and a quality management team (Abas et al., 2015).

#### **5.1.4 Risk Management Mediates the Relationship between Project Planning and Project Success**

To check the mediation analysis between project planning and project success, the author employed the preacher and hays model 4 in SPSS. The author looked at the direct, indirect, and total impacts in this mediation investigation. Even though the bootstrap is 95 percent and the lower limit is 0.2788 and the upper limit is 0.6311, the main indicator that risk management mediates the relationship between project planning and project success is that the upper and lower limits have the same sign and there is no zero value between the limits.

A continuous process of recognizing, assessing, coordinating, and resolving dangers that affect an activity's chances of success in terms of cost, schedule, quality, safety, and specialized execution is known as project risk management. Extensive risk management exercises are frequently seen as a "nice to have" on a project by associations and owners rather than a vital component of project controls. You'll need to put together a system of risk control capabilities to bring the risks under control once you've assessed the project's primary risk elements and their respective needs. The first stage in this process is to create a set of risk management plans that outline the measures needed to control risk variables and assure the projects or end product's smooth flow and completion (Boehm, 1991). The primary purpose of project risk management is to increase the firm's value (Dalcher, 2012).

Because of the geographical and social separation that seaward outsourcing creates, the critical question to explore is how social differences affect the successful management of cross-cultural projects. Multifaceted difficulties, in particular, will almost certainly become a critical component, as they have in the management of worldwide joint tasks. It is necessary to understand cultural differences in order for projects to be effective (Brannen & Salk, 2000). The project risk management framework can benefit the business by boosting the effectiveness of human effort

while also increasing the efficiency of these efforts. As a result, project success is determined by its short-term efficiency as well as its medium- and long-term efficacy in accomplishing the desired outcomes (Miller & Jugdev, 2012).

As a result, the literature suggests that planning ahead of time is advantageous. Risk management plays a role in project planning and success. A continuous process of recognizing, assessing, coordinating, and resolving dangers that affect an activity's chances of success in terms of cost, schedule, quality, safety, and specialized execution is known as project risk management. According to studies, planning is one of the most critical parts of project success. As a result, good planning raises the chances of a successful project execution and completion. The Project Manager is in charge of planning and must ensure that it is completed correctly and to the satisfaction of all stakeholders (Pinto & Slevin, 1988).

A few studies have looked into the impact of crucial anticipating corporate planning (Rhyne, 1986). Only ten out of fifteen experimental reviews found substantial changes as a result of formal planning exercises (Foster, 1986). The consequences of project success prediction, on the other hand, are significantly less equivocal. In a review of 44 empirical project management success factor research, thirteen papers exploring the impact of project planning on project success were discovered (Lechler, 1997)

### **5.1.5 Transformational Leadership Moderates between Project Planning and Risk Management**

According to the prior literature, leadership style is one of the most important characteristics that determine project success (Lloyd-Walker & Walker, 2011). Through team building, problem solving, and setting high standards and goals for the team to achieve, transformational leadership has a positive impact on project success, increases performance, and inspires followers to perform better than what is expected of them (Klein et al., 2009).

Individuals are inspired by transformational leadership, which focuses on shaping and aligning individual needs with the needs of the company (Tyssen et al., 2014b).

Individualized concern, idealized influence, intellectual stimulation, and inspirational drive are four fundamental elements of transformative leadership, according to past study.

These qualities and attributes are used by transformational leaders to assist the project succeed (Aga et al., 2016). While project success is a statistic for determining if the project's goals and objectives have been fulfilled, as well as whether the project will be completed on time and on budget, it is also a metric for deciding whether the project will be completed on time and on budget. Is the project going to satisfy the specified quality standards (Serrador, 2015). During this study, it was discovered that Transformational Leadership is positively associated with Project Success. If transformational leadership style is used throughout the project life cycle, the project will not only be completed on time, but will also meet user expectations, resulting in more successful projects (Amankwaa, 2018). Transformational leaders motivate and encourage their employees to go above and beyond what is required of them (Bass & Riggio, 2006).

The goal of this study was to see how transformational leadership affected the relationship between project planning and risk management. Hence it is statistically proved that transformational leadership has strengthen the relationship between project planning and project success.

## **5.2 Research Implications**

### **5.2.1 Managerial Implications**

This study has both managerial and theoretical implications while executing the time projects it should be kept in mind that project planning is an important essence to successfully implementation of projects and their risk management. Top management should keep the importance of transformational leadership in mind as it is an important element to execute project through proper planning and well outlined risk management plans, moreover this study highlights and provides a charming contribution toward project success through risk management

and transformational leadership. As market is rigorously rushing toward implementation of project based organizations so it is necessary to ensure all the needed measure to make projects successfully by proper leadership and risk management.

We obtained data from projectized and non-projectized government and non-government organizations because this research is not limited to project-based organizations. As a result of the findings, the moderator is not strengthening the relationship between project planning and risk management, because in both the public and private sectors, the project manager is not only responsible for the project, but also for the project's managerial activities, which take a lot of time and leave the manager exhausted.

In results project delayed in turn no project success. All the qualities of manager get wasted when the entire focus is not on the project if the concentration is diverted it can effect project success. As the result of this study a manager having traits of transformational leadership cannot interact with team properly and thus cant work on their self-efficacy to do more.

### **5.2.2 Academic Implications**

The results of the proposed study can be used by social scientists and other researchers to investigate the impact of project planning and risk management on project success. This study can be used in a variety of development projects since it explains how project planning affects project success with risk management as a mediator and TL as a moderator, and how it can assist an organization in a variety of ways.

In today's world this research can be used as foot forward to ensure the further research on organizational structures and culture. This study can be used to make how project planning and some other factors can impact project success in country like Pakistan and more appropriately in project-based organizations.

The findings of this research tells us that TL has not moderated the between PP and RM and its impact on project performance and success. So this study can be used as future reference for comparison of such practices in different kind of

organizations and industries. It shows the importance of project planning with risk management under the transformational leadership which plays an important role in project based organization rather than traditional organization.

### **5.3 Limitations of Research**

This study like all researches has its limitation, first limitation and foremost is the time and resources. This is a cross sectional research so it has those limitations. Due to these limitations it is not easy to cover all the aspect of study. The model is using only one mediator and one moderator, in future researchers can use more moderators and mediator. Data gathered in this study is from only two cities of Pakistan Rawalpindi and Islamabad due to time constraint. The researchers can use more time to gather data in future. So for further research data can be gathered from different project based organization of Pakistan other than IT organization. One other limitation is that this study uses convenience sampling. Convenience sampling is also referred as limitation in research as it might not reflect the real population. If the data was collected from the real population then the result might be different. Persuading employees give data is very difficult task because they are least willing to help in this regard.

### **5.4 Future Research**

There are so many aspect of study that couldnt be covered in this research so there is so much room for improvement. This study opens up a slew of new avenues for future investigation. Using Risk Management, we tested the impact of project planning on project success in this study.

Other variables can also be used to investigate the relationship between project planning and project success. Future studies could focus on switching the moderator between the PP and Risk Management. Other knowledge fields can be employed as mediators between Project Planning and project success. We suggest additional study to be made on data and techniques to data collection. This study



has organization based mediator and moderator by changing one or both can lead to different results.

## **5.5 Conclusion**

The goal of this study is to look into the relationship between project planning and project success in projectized organizations in Pakistan's various cities. A closed questionnaire-based survey was undertaken to collect data with the purpose of studying the impact of project planning on project success, with Risk Management serving as a mediator and Transformational Leadership serving as a moderator. Almost 350 questionnaires were distributed for analysis purpose of the said relationships but 211 questionnaires were utilized for the study having correct information. The present study and proposed hypothesis were accepted and supported in the light of project planning showing how to deal with complex projects. There are five hypotheses in this study, tested and evaluated in Pakistan context. The research has provided complete view of the impact of PP on PS with Risk Management as mediator and moderation of TL.

Research showed that project planning is impacting project success the project based organization in Pakistani context. Project planning is the core process in the success of the project and it is statistically proven in project based organizations in Pakistan that it project planning has positive impacts on project success .Furthermore, when the risk is large, risk management strengthens the link between project planning and project success. When risk management is employed as a mediator in a project-based organization in Pakistan, it produces favorable benefits. Transformational leadership has moderation effects in particular research when it is used as in moderator. In this research is statistically proven that transformational leadership do moderate the relationship between projects planning a risk management.

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# Appendix A

## Questionnaire

Dear Respondent,

My name is Atta Ul Mohsin and I am MS Project Management student at Capital University of Science and Technology, Islamabad. You are invited to participate in a research study. Following is some information to help you decide to take part in the study. Please read the information carefully. If you have any questions about the study, you can ask by email:

Researcher: **Atta Ul Mohsin**: attaulmohsin086@gmail.com

Supervisor: **Dr Jaleel Ahmad**: jaleel.ahmed@cust.edu.pk.

**MS (PM) Research Scholar, Faculty of Management and Social Sciences, Capital University Science and Technology, Islamabad**

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## Information Sheet

This research is to study the relationship of Project planning, Risk management, Transformational leadership and project success in project management. Thesis Committee of Capital University of Science and Technology, Islamabad has approved this study. All employees of the organizations that carry project based activities are invited to participate in this study. To participate, you have to fill in the questionnaire. It will take only 5-10 minutes of your time. Your response

to the email with the filled questionnaire will be considered as your consent to participate in the study. Your responses will be kept strictly confidential and will not include any names or other details about yourself.

Any publication of the research will also not include personal identification details of participants. While there may not be any immediate personal or professional benefit from your participation in the study, your participation is highly valued. It will help us understand the dynamics of our study variables in project based activities and make recommendations for wellbeing of people working in such environment. Participation in this study is voluntary. There will be no cost to participate in this study. Please insert your name in the consent form below before filling in the questionnaire.

## **CONSENT FORM**

I confirm that I have read and understood the preceding information sheet. I was given the opportunity to ask questions. My participation in the study is voluntary and I have the right to withdraw from the study at any time during the administration without any of my medical care and legal rights being affected. I understand that the information obtained from the questionnaires will be anonymized and will be used for the purposes of research only. I agree to take part in this study.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Section 1: Demographic

Gender	1- Male 2- Female 3- Prefer not to say
Age(years)	1 (18-25) 2 (26-30), 3 (30-35), 4 (35 and above)
Qualification	1 (Matriculation) 2 (Intermediate) 3(Bachelor) 4 (Masters),5 (PhD)
Experience(years)	1 (0-5), 2 (6-11), 3 (12-17), 4 (More than 18 years)

## Section 2: Project planning

Project Planning: (Encircle an option, Strongly Disagree = 1, Disagree= 2, slightly Disagree = 3, Neutral = 4, Slightly Agree = 5, Agree= 6, Strongly Agree = 7)

1	When my team decides on what we will try to accomplish in the short term, we kept in mind our long-term objectives.	1	2	3	4	5	6	7
2	My team revised our goals to determine if they need revising.	1	2	3	4	5	6	7
3	My Team broke complex, difficult projects down Into smaller manageable tasks.	1	2	3	4	5	6	7
4	My team set short-term goals for what we wanted to accomplish in a few days or weeks.	1	2	3	4	5	6	7
5	My team set deadlines for ourselves when we set out to accomplish a task.	1	2	3	4	5	6	7
6	My team looked for ways to increase the efficiency With which we performed our activities.	1	2	3	4	5	6	7
7	My team finished top priority tasks before going On to less important ones.	1	2	3	4	5	6	7
8	My team reviewed our daily activities to see Where we were wasting time.	1	2	3	4	5	6	7
9	During the day, we evaluated how well we were following the schedule we have set down for ourselves.	1	2	3	4	5	6	7
10	We set priorities to determine the order in which We will perform tasks each day.	1	2	3	4	5	6	7

## **Section 3: Project success**

1= Strongly Disagree 2= Disagree 3= Neutral 4= Agree 5= Strongly Agree



1	The project was completed on time.	1	2	3	4	5
2	The project was completed according to the budget allocated.	1	2	3	4	5
3	The outcomes of the project are used by its intended end users.	1	2	3	4	5
4	The outcomes of the project are likely to be sustained.	1	2	3	4	5
5	The outcomes of the project have directly benefited the intended end users, either through increasing efficiency or effectiveness.	1	2	3	4	5
6	Given the problem for which it was developed, the project seems to do the best job of solving that problem	1	2	3	4	5
7	I was satisfied with the process by which the project was implemented.	1	2	3	4	5
8	Project team members were satisfied with the process by which the project was implemented.	1	2	3	4	5
9	The project had no or minimal start-up problems because it was readily accepted by its end users.	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

## Risk management

1= Strongly Disagree 2= Disagree 3= Neutral 4= Agree 5= Strongly Agree

1	Formal project management tools and techniques were employed for this	1	2	3	4	5
2	The project's scope, size, and effort were estimated Adequately.	1	2	3	4	5
3	The implementation risks were adequately evaluated Classified, and prioritized.	1	2	3	4	5
	Classified, and prioritized.					
4	The implementation schedule was realistic.	1	2	3	4	5
5	Project managers in charge of the project were highly Capable and experienced.	1	2	3	4	5

## Transformational leadership

Please tick the relevant choices: 1= strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

1	Team members have complete faith in me.	1	2	3	4	5
2	I provide appealing images about the project to myTeam.	1	2	3	4	5
3	I enable team members to think about old problems in- New ways.	1	2	3	4	5
4	I give personal attention to a team member who seem- sNeglected	1	2	3	4	5
5	Team members are proud of being associated with me.	1	2	3	4	5
6	I let my team know that I am confident that the project goals will be achieved	1	2	3	4	5
7	I provide team members with new ways of looking at Puzzling things.	1	2	3	4	5
8	I help each member of the team to develop his/her- Strengths	1	2	3	4	5
9	I make the team members feel good to be around me	1	2	3	4	5
10	I help team members and meaning in their work.	1	2	3	4	5
11	I get team members to rethink ideas that they had never questioned before	1	2	3	4	5
12	I am attentive to the unique concerns of each team mem- ber.	1	2	3	4	5
13	I show my team that I am optimistic about the futureof the project	1	2	3	4	5