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Impact of Project Planning on Project Delay with the Mediating Role of Project Awareness and Moderating Role of Project Governance

by

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This thesis is dedicated to my father, who taught me that the best knowledge that can be gained is only by hard work and constant struggle in life. It is also dedicated to my mother, who gave me the motivation and strength to keep up and work my way towards success.

CERTIFICATE OF APPROVAL

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Abstract

The objective of this study is to examine the impact of project planning on project delay. A survey was conducted consisting of individuals working in different projects from the cities of Islamabad and Rawalpindi to measure the effects on the projects due to project planning in Pakistan. A total of 400 questionnaires were distributed out of which 288 were retrieved. The data was collected using convenience sampling. Author found out in this research that the project delay is mitigated if project planning is carried out properly in which the project awareness plays an important role. There are numerous implications of these finding in the project environment for the practitioners. At a strategic level, the senior management should acknowledge the effects of project delay on the health of project and how it can be mitigated if project planning is carried out in the right way so the negative effects can be eliminated from the projects. Further, the management can take steps to enhance planning process and manipulate the work force in such a way that their productivity is increased. This research also suggested directions for future studies.

Key words: Project Planning, Project Governance, Project Awareness, Project delay.

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Abbreviations

PP   Project Planning

PA   Project Awareness

PG   Project Governance

PD   Project Delay

PMO Project Management Office

Chapter 1

Introduction

1.1 Theoretical Background

The first requirement of the well execution of a plan is that it should be properly planned otherwise even the minute errors in planning manifest as project delays at different stages of a project (Sambasivan & Soon, 2007). The whole process of planning should be well executed because of its direct effect on the schedule performance of the project (Hwang & Leong, 2013). This will lead to project schedule delay affecting the stakeholders both in terms of time and money.

The organizational structures have changed dramatically in the recent past. Most organizations are now focusing on projects in order to meet their customer needs. There are different phases in the project life cycle and each phase has its own importance but according to contemporary studies, project teams are not focusing on project planning, do not have high project success rate and because of this a systematic analysis is decidedly essential. Martin and Tate (2000) has explained project planning as an official and agreed document used to escort both project execution and project control. The project planning is an executive practice executed in advance of an action, which endeavors to design an anticipated prospect (Ackoff, 1970).

Time is the most important parameter of a project and a measure of project success during the complete life cycle of project management (Aziz, 2013). The life cycle

of the project is bound by a timeline which is meant to be followed in order to categorize the project as completely successful. Awareness of consequences of the project delay has made significant impact on the people involved in project management to optimize the project and invent better ways to handle the hurdles in the processes (Larsen, Shen, Lindhard & Brunoe, 2015). Governance points out towards the social coordination issues, theories and the nature of all patterns of rule (Bevir, 2011). For a better control over the outcome of a project governance arrangement should be made with appropriate methods to govern and control the project (Weaver, 2017) Underdeveloped or misaligned mechanisms of governance result in problem in performance (Pinto, 2013).

Today the era of projectized firms have compelled project managers not only to reduce time and cost but to increase project performance. Due to the novel attribute of the projects they are of complex nature (Yang, Lu, Yao & Zhang, 2014; Laine, Korhonen & Matinsuo, 2016), thereafter, effecting the performance of the latter in a negative way (Hanisch & Wald, 2014; Tatikonda & Resenthal, 2000). Different activities have different dependencies on each other (Burke & Morley, 2016). Creating fuss in the project and this asks for planning of project in such a way that the project can survive the run and can be completed in the given time as by the customer of the project.

Variation in customer needs and project objective often come even after the planning phase but having an appropriate planning is significant and saves time later. It requires quite a few people as it helps in understanding the different factors of the project objectives. It is not necessary that all projects end in success. Sheilds and Wright (2016) there are very clear signs for the projects to be improved to get the desired output but still, a large number of projects get delayed. If the project manager and the project team are able to find out the answers for the main core questions in the project planning that it will increase the chances for the project to be completed on time (Hollins, 1971).

Delay is the increase or overrun of the set time schedule for a project to complete. For example, the delay in construction industry especially in Malaysia is something which cannot be avoided (Hamzah et al, 2011). Therefore, the condition where the

planned schedule does not meet the actual schedule is the delay. If it cannot be avoided but it can be mitigated by certain steps, better following of the set procedure and risk management. This take highlights the importance of good planning practices and following of process as by project management methodology.

By adopting a well-managed plan process of shared knowledge are stimulated through which the it becomes possible to generate a governance system to manage the project and keep the schedule in limit (Ioppolo, Cucurachi, Salomone, Saija & Shi, 2016). A plan acts as a brain to the project by which all the orders have to be given and everyone consults the plan to determine the line of action. A system of project governance has the objective to ensure a constant and complete delivery of project deliverables while limiting the project in the constraints which are set by the higher management according to satisfaction criteria of the external stakeholders (Mller, Andersen, Kvalnes, Shao, Sankaran , Turner, Biesenthal, Walker & Gudergan, 2013)

1.2 Research Gap

The generalization of research studies must be done with caution because it depends on the context what the results turn out to be. The study on the effects of project planning should be studied in different regions of the world which are followed by regression analysis to see whether the effects change or not (Larsen, Shen, Lindhard & Brunoe, 2015). The researches regarding the project planning effect on project delays are diminutive for the local market and people do not have vast acquaintance about its impact on the overall project health.

In a country like Pakistan where most of the projects go into delay and under the effect of moving against its project schedule baseline and crossing the project deadline, we have to see how much poor planning is affecting the project deadline. While observing how the project awareness of an employee and the project governance play its role in enhancing or diminishing the aftereffects of poor planning on project deadline. The effects of Project management and its planning should be

evaluated by seeing what factors moderate and mediate the relationship between project planning and project success (Joslin & Mller, 2015).

In Pakistan, organizations and government institutes have started focusing on projects whether they are big projects (Metro BRT project and new international Islamabad airport) or small projects in order to complete their work. The market has shifted their focus to cope with international market and universal standard, we can say project management is still immature in the local area or it needs a lot of improvement to meet those standards. We see that most of government projects gets delayed but no one know what were the reasons behind them. If project managers and management have any data (trends or major root causes) of poor project planning and its impact on project deliverability then it might help them to avoid those factors and to be able to complete project on time

Analysis done by Gebrehiwet and Luo (2017) gave the result that due to delay there are two main effects that can be observed that is the cost overrun and time overrun of a project in Ethiopia. While this research was conducted in Ethiopia to identify the main culprits for project delay but this conclusion from this research can be applied in some other country with similar situation and can be a topic of further study.

A more focused study is to be conducted in the context of the region under observation to find the specific problem to find what the real issue is between the planning and components of project success like project schedule (Patanakul, 2014). Future studies must focus on the involvement of personals in project planning and its proper implementation. While explaining the relationship of employee involvement and the indicators which can affect the project planning process i.e governance in the project environment (Hunt, Lederman, Potter, Stoddard & Sorensen, 2000)

1.3 Problem Statement

Most of the construction projects in the world are troubled due to the schedule and time overruns. Few delay causes are unique to a specific area and some are common in all of them. Schedule plays an important role in the industry specially

the high-end construction projects (Sanyal & Bhattacharya, 2018). That is the reason of examining these models in Pakistan in different industries.

The ranking of Pakistan is in the lowest ranked countries in the global infrastructure ranking despite the fact that Pakistan has invested heavily in this domain. The main plague to its assets is bad project governance. Project Governance and planning are the variables of a project which serve as the backbone of the whole system and can lead the projects either towards success or failure. Not much research has been done to observe the impact of project planning on the project deadline in developing countries like Pakistan and how variables like project governance and project awareness play their role defining the final outcome.

Those projects that are executed in complex environments face delay, cost overrun, and do not deliver what was planned (Locatelli, Mancini, & Romano, 2014). The underestimation of cost, risk, time of a project is the planning fallacy which will affect the health of the project in form of delays and cost overruns (Cantarelli, Flyvbjerg, Molin, & Wee, 2010). Geraldi, & Morris, (2011) stated that the stakeholder especially the internal one influence the project management practices in the shape of their implication and their structure.

The project actors play a vital role because they act as the driving force of the project and in the core of the performance problems lies the influence of these actors (Pinto, 2013). Project governance leads to the stability on processes, roles and techniques while the project governance structure gets aligned with the nature of the project. (Mller, et al., 2014)

Several characteristics of the project have to be considered in project planning. By Shi et al. (2014) as not all the features of a project can have the same importance; it is very time-consuming in project planning. Change in customer need or other constraints also hold sway on the execution of projects. Most of the time the customer is not able to explain what exactly he/she is expecting from the project. Giezen (2012) said that the simplicity has to be one of the main goals of project planning.

The current study will highlight the importance of proper project planning and its impact on the project delay. This study will test the proposed model in the context of Pakistan in order to fill the gap between current literatures.

1.4 Research Question

This study aims to answer the following questions based on the problem statement:

1. Is proper planning important for a project? How it effects the project outcomes?

2. How the project schedule is affected by the planning?

3. How project delay is a measure of project success?

4. Is the project planning and project awareness related to each other? If so, how?

5. Does project awareness have an impact on project delay?

6. Does Project awareness act as a significant mediator between project planning and project schedule?

7. Does moderating role of project governance has an impact on the project delay?

8. What is the significance of project planning in project management?

1.5 Objective of Study

The aim of this study is to fill the knowledge gaps by achieving the following objectives:

1. The direct effect of project planning on project delay.

2. The effect of project awareness of an employee to complete the project in its given timeline.

3. The effect of project governance on the project.

4. Testing the research model in the context of Pakistan

1.6 Significance of Study

This study will provide us with the effects of project planning on the project delay in the context of Projects in Pakistan.

Most of the research which has been done on the impact of project planning on project delay is conducted in either developed countries or outside the 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.

Organizations and government institutes can use the results of this research to analyze strategies which they are following in their workplace and highlight the differences so that they can complete their projects on time by using an appropriate project planning

The take away of this study is to urge the organizations working in Pakistan to use the proper project planning tools and techniques and give importance to monitoring tools and techniques in completing the projects on time. Magnaye et al. (2014) said that advancement of the project gets detriment when the team is unable to perform their roles effectively.

1.7 Supporting Theories

Several theories worldwide have been presented by different researchers in the domain of planning, project governance, project awareness and project delay. But

the Henri Foyal's Administrative Theory explains all the variables and their associated factors. This theory is based on how the management should interact with the employees and the project.

1.7.1 Administrative Theory

Henri Fayol's management theory is a simple model of how management interacts with personnel. This theory is given by Henri Foyal which consists of five basic elements which are Planning, Organizing, Commanding, Coordinating, Controlling. These five elements cover all the variables considered in the current study.

This theory consists of fourteen principles which supports the research model in such a way that it explains the aspects of project management which are authority, responsibility, division of work, discipline, unity of command, order etc. which are the cores of our research. Project governance, planning, project awareness is extensively explained using this theory by Henri Fayol. The fourteen principles can be used to manage organizations and are useful mechanism to forecast, process management, planning, management of the organization, decision making, control and coordination.

By this theory Henri Fayol concluded that management must plan and schedule of every part pf the project. Project governance is an essence of this theory explaining the fact that management must direct and encourage the personals involved in project. So, our model is strongly supported by this theory and will provide the grounds to explain our results. Also explaining how project awareness can affect the project to be on schedule and how it plays its role while planning the project in such a way that employees knowing their responsibilities will be better be able to plan properly to get the project done on time.

Chapter 2

Literature Review

The research model explains that Project Awareness mediates the effect of Project Planning on the Project Delay while the Project Governance acts as a moderator in defining how well a project is governed so that its project schedule do not cross its limit. This model is explained via the Henri Fayol's administrative theory.

The model suggests three hypotheses based on the relationship between the different variables under consideration. While the variables used in this study are as below:

Project Planning

Project Planning refers to the plans, schedules, estimates, setting of goals to accomplish and prioritize the tasks in order to deliver the project in the set time, cost and as per customer specifications.

Project Awareness

Project Awareness refers towards the employee or the project team member of the organization. He should be aware of his role in project, should have the capabilities to understand and complete his work.

Project Governance

Project Governance adheres to conformance of the polices as set by the higher management (i.e Project management office), stakeholder satisfaction, following of proper procedures, check and balance on the overall project so that project do not moves away from its objective.

Project Delay

Project delay refers towards the fact that was the project not following its timeline, had the project crossed its deadline.

2.1 Project Planning and Project Delay

An important strategic issue to studies of organization, strategic management and leadership is the proper management of Project (Pitsis, Sankaran, Gudergan & Clegg, 2014). In the initial planning stages the failure is seen on the part of contractors to develop a workable and implementable project plan. This has its roots in inexperience and lack of management which causes delay and failure in projects (Sambasivan & Soon, 2007).This results in clarity in roles and responsibilities and what is to be done to get the satisfaction of the customer.

Pinto and Prescott (1986) identified ten key success factors of project and monitoring of the project is on the list. Pinto and Prescott (1990) also discussed that better the project planning the easier it becomes for the project team to implement the project successfully. Pablo Gonzlez et al (2014) in their study found out that the project delay is caused by two major causes which are because of the reason of non-compliance to plans and non-compliance to the subcontract due to which more frequent delays can be seen while having major impact on time performance. While planning is most important between the two and should be taken care of while the project is underway. If not handled properly the poor plans will become less valid for the situation at hand and we will not have enough time to plan

again for the project due to fast speed expectancy of the project completion. If this happens the project will go out bounds and will be considered as a troubled project.

Projects differ in nature, size and complexity and their success depends upon the management of project. Traditionally and in recent times the project success is mostly dependent upon scope, time and cost and different stakeholders have different perspective of project success (Bakker, Boonstra & Wortmann, 2010). According to Serrador and Turner (2015), project success and project efficiency are used interchangeably and defines project efficiency as scope, time and cost goals while project success as meeting business, organizational and enterprise goals. But there is a need of identifying factors which are constantly emerging and influencing project success (Mir & Pinnington, 2014). These types of measure include completing project in its time, cost, quality triangle and can be completed by following the project plan. By project plan means the documented way of doing the project on which the project team will work to materialize the project from documentation towards physical existence. This requires a project manager with certain leadership skills and competency and project team that is an expert in the domains in which the project is being carried out.

Time over run and delay in completion of the project can be caused by factors like lack of proper planning, improper management of site, poor handling of projects (Sambasivan & Soon, 2007). These factors are embedded in the projects structure so to fulfill the proper completion criteria of the project. Inappropriate process of planning of project as well as the poor design and execution can create cost overrun and delays causing project to go towards failure (Cantarelli, C. C., Flyvbjerg, B., Molin, E.J.E. & van Wee, B., 2010). Advancements in technology has allowed software firms to indulge more into customer satisfaction during project development. In this revolutionized age it is important to satisfy customer which is ultimate goal to achieve satisfaction from customer. Customers are more satisfied when their demands are fulfilled and their requirements are met (Szymanski & Henard, 2001).

For the combination of planned and emergent activities ability helps to improve the result of project management. This methodology help teams to use their time more efficiently while having financial constraints (Lewis, Welsh, Dehler & Green, 2002). The study conducted by Kikwasi concluded that risk of delay and project disruption still exists due to different factors that play their role in delaying the project. The performance of the project is affected by the factors which tend to disrupt the outcomes of the project. The factors or causes are payment delay, changes in design, delay in information, problems in funding, poor project management, issue in compensation, disagreement of the evaluation criteria of the work that has been done. Likewise, the effects of the delays are seen to be overrun of cost, time overrun, negative impact on social life, resource idling and conflicts. These causes seem to have significant affect on the health of the project. They may affect the project in different capacity in different context and environment. But planning is the cause of project delay that will affect the project in no matter what condition or context. Because planning is considered to be one of the most vital component of the project and acts like a brain for the project, all the direction for the project completion must be a part of the plans for its success and direction of the individuals working on it.

In the rapid growth of industry and fast demand of products the projectization methodology helps a lot but it comes with its own consequences. Projects are associated with risks that can cause problem for the project or even render it fail, causing loss in terms of money, time, resources, customers and what not. To cater the unforeseen events all the stakeholders of the project must ensure that proper planning is done which in the other case can increase the project time, increase of cost, and can cause prolonged risk to the individuals working on the project. These types of risk can be transferred to third parties so that they don't affect the health of the project not to the level that the project goes into failure in terms of cost as well as time (Muhwezi, Acai & Otim, 2014). In this way the project can absorb the hit from the risk in the form of cost and delay. We have some amount of cushion available for the project to work on its timeline.

To start any project the first stage is the initiation phase in which the project is

awarded to the project managers while giving him authority, responsibilities and making him accountable for the project. The next and far most the important stage that lies next is the planning of the project, how it will be completed? What methods will be used? What are the responsibilities of the individuals? The project manager with his team plan for all the activities that are to be done in the process of completing the project. The planning as it is a very vital part of whole project and the plans act as direction towards what needs to be done, so the planning should be done such that it is up to mark by the project manager and his team. The project manager should look for efficient and novel techniques for managing and plan the project deliverables. If not done properly it can cause confusion, fuss, disruptions in the project causing many problems in it one of which is the delay in the project resulting both in money and time.

The contractor of the project must ensure that the proper planning has been done and work is scheduled. The site management should be effective and supervision of work must be done so that the critical activates on time and work to complete the projects on time while keeping in the triangle of time, cost and quality (Muhwezi, Acai & Otim, 2014). In the construction industry delays of activates is an issue that is common and can cause the project time and cost (Gonzlez, Gonzlez, Molenaar, ASCE & Orozco, 2014). The potential effects of delay are found to be overrun of cost, overrun of time, contract termination, arbitration (Gebrehiwet & Luo, 2017). The aftermath of project planning that was not done properly will affect both the contractor and owner of the project. It will cause plenty and extra effort to the contractor while for the owner it will also affect him in monetary terms as well as in terms of delay of his project completion.

A firm project planning does not guarantee the success of the project but according to Dvir, Raz and Shenhar (2002) if a project team does not spend the appropriate time in project planning, it would definitely delay the project. The planning plays an important in project life cycle but if project teams lacks the ability to govern the project properly or does not know its roles and responsibilities it puts an effect on the different aspects of the project and sometimes leading the project either towards failure or delay. Stakeholders also have different views and thoughts about

project success and the main thing about project success is client satisfaction. Significant success factors are determined by stakeholders including getting project on time (Davis, 2014). Project success is often considered as successful project management (Ika, 2009).

The success of the project is mostly dependent on three factors and their management that are management of time, management of cost, management of scope. These factors are also known as the triple constraints and are the basis to measure the project's performance. If one of the factors deviates from its parameters than it also affects the other two factors. If the agreed upon performance indicators of scope, time and cost are not within the set parameters then the project is considered as failed (Wasim & Khalidi, 2018). The human factor has no effect on the process of planning. The process of time, cost and risk which are a part of planning are associated in a positive way for success of project. From the nine different activities of planning only three are important for the success of the project. So, if project manager has constraint with respect to time then he has to put focus on risk, cost and time between the nine activities to gain success for a project (Tesfaye, Lemma, Berhan & Beshah, 2017).

In the construction industry of morocco only one single individual is responsible for planning and creates the master schedule on the basis of the intended outcomes of the project, without considering the capability of the companies undertaking the project to complete the undertaken task on time. Lack of communication and coordination between different stakeholders of the project causes problems for the project. In this way the workers are not dedicated to work together and work as a team (Bajjou & Chafi, 2018). This handling of project by a single individual is not appreciated because a single individual cannot think or plan better than a team due to brain storming sessions meetings etc. He will not be able to deliver the task on time, the problems in communication and overburden of task will exhaust him resulting in poor planning and causing the delay of the project.

The project moves in the limit of the time, scope, cost and must be kept inside a predefined limit to categorize it as completely successful. While planning the three most important factors which are Time, Cost and Quality must be taken

into account to create a plan which stays bound to the iron triangle of triple constraints (Larsen, Shen, Lindhard & Brunoe, 2015). The lack of proper planning causes poor coordination between different parties in project due to improper flow of information in the construction industry (Doloi , Sawhney , Iyer & Rentala, 2012). To achieve the stakeholder satisfaction in terms of time, scope, budget, risk, quality the project requires effective management process especially the planning process (Weaver, 2017). These management process will help the project manager and the project team to plan better and find efficient ways to perform the task. The better use of material will take place and we can assume that the project will be completed on time within the set boundaries of resources and time.

Less use of, improper use of and inconsistent use of proper processes are the factors that initiate many problems. It involves the inconsistent and ineffectively usage of collecting requirements. Causing problems in the identification of requirements, lacking in management of risk, monitoring and control process, process to manage change, and the validation and verification that is done internally, reviews, take up the form in project management and project governance (Patanakul, 2014). This lead towards the problems that can cause significant effect on the project deliverables and there time. For the project to be catogirized as complete and success all of it deliverables must be completed on time with the use of proper process as suggested by literature or as per the companies polices.

On time completion of project is the one of the most important things as wanted by the project sponsor in the construction industry, but still it remains a very big challenge in today's world. This type of delays come with consequences that can lead to more catastrophic results in the form of bad relationships, lack of trust, stakeholder mistrust. This effect can be reduced by using a project strategy that will use the individual's skills and groups efforts to contribute for the organization so create a balance to make the best use of the resources avaibale (Mpofu, Ochieng, Pretorius & Moobela). By removing this type of culprits from our system we will be able to better mitigate the effects of delay and the catastrophic consequences associated with the delay pf the project.

Project performance is affected by the main factor of projects variables. A barricade is created by complexity and size of the projects for the project performance (Hanisch & Wald, 2014; Tatikonda & Resenthal, 2000) including island triangle along with monitoring and control system (Cristbal, 2017) creating delays in the projects. Project delay is one of the most faced, increasing and unavoidable actualities of projects and requires high skills, proper tools and techniques to manage with the ever-alternating market tendencies and faced ambivalences thorough out the project life cycle and take the required and legitimate decisions (Vidal, Marle & Bocquet, 2011), playing a vital role towards project performance.

Project planning stipulates a set of conclusions concerning its execution in order to provide a preferred new product, service or result (PMI, 2013). Planning is an essential part of project management (Zwikael et al., 2014). However, the recent studies advocate the importance of planning is overemphasized. The effective project planning has an absolute positive effect on project success (Dvir & Lechler, 2004). As organizations are over focusing on the project triple constraints in order to complete the project deliverable but this mentality is also creating the problems at the organizational and individual level (Maylor et al., 2006). Because in the modern-day project management it can be observed that not only the triple constraints are important but in addition factors like human capability, planning team, process used, governance mechanisms, culture of the organization, skills and expertise of the project team etc. also matter and should be managed properly so to get the required result.

The contractors who have the responsibility to materialize the project should pay attention to scheduling and planning which can be revised as per the situation that occurs in the projects (Aziz, 2013). The project is completed by certain contractors if not by the own employees of organizations so to award a contract, the capability of the contractor must be enough to deliver a properly planned and completed project. Project management methodology which is complete and comprehensive associates project success with it as compared to an improper one (Joslin & Mller, 2015). A project management plan is executed well using the

resources of the organization effectively and efficiently when good governance is practiced in the project and the organization (Too & Weaver, 2014)

In the recent time of boom of industry many factors are observed to be causing ripples in the projects, some of the factors include improper planning, lack of commitment, poor site coordination, inefficient management, project scope unclarity, improper communications. These factors are observed commonly in most of the projects and must be focused on (Doloi, Sawhney Iyer & Rentala, 2012). So, the project is a function of working of all the components of the organization in harmony. These ripples must be removed and taken care of because they serve as continuous threat to the project. As far as projectization is efficient it also makes the project sensitive to the risk from inside and outside of the organization.

In current situation, many projects are undergoing and every project is different to each other having dissimilar environment, features, scale, needed skills, timeline, etc., and each of the projects reacts differently to its conditions; hence planning of the project needs to be taken seriously in order to eradicate the negative impacts and consequences that can born if ignored. Making planning a important component of the project in order to complete it. Many of the projects under taken are a requirement of time and technology advancement which are time, cost and quality bound. So to make the project work as it is supposed to we have to take certain steps in order to deliver the end results.

The delay causes which are most important are related to clients, finance, completed work payments which is ranked number one, poor planning and factor related to contractor are ranked number two, delivery of material is ranked number three, condition which are unforeseen are ranked number four, management of site is ranked number five; problem related to consultant are ranked number six, communication lacking is ranked number 7 approval of drawing and there preparation is ranked number 8, lack of skills is ranked number 9 and the availability of equipment is ranked number 10. The effects of delays which are most important are overrun of cost, conflicts, litigation, arbitration, and leaving work uncompleted (Sambasivan, Deepak, Salim & Ponniah, 2015). One way or the other, poor project planning is positively related to the project delay. The poor

project planning will in return effect the organizational success and goals resulting in project delays and sometimes even project failures.

Performance in the context of projects have many different and extensive abstractions, whereas more of the researchers measured project performance as its compliance with the basic constraints sometime referred as The Golden Triangle. In a group of people who are striving for the same purpose, performance means to deliver the process or product in a successful manner to the customer (Meyer, 1994). Moreover Boyne & Gould-Williams, (2003) highlighted that other than the triple constraints there are many other factors like efficiency, cost and other financial measures etc. to measure the project performance.

When project planning is poor, the changes will come during the execution phase and when the changes are related to transformational changes then ultimately the outcome will be frustrating (Ram, Corkindale & Wu, 2013). Many Information technology projects fail at the start rather than at the end, because of inadequate project planning (Tasevska, Damij & Damij 2014). Delay in every project, has a momentous effect on the overall attainment of the organization no matter how well any project team has planned the project schedule. There is always a likelihood of project delays and project postponements occur due to many reasons, as they are not limited to project complexity, an amendment in scope or inappropriate procurement. It has been the concern for the project managers to deliver the project on time (Ika, 2009). The expected events and activities that can cause the problem in the future can be avoided if project planning is done effectively (Hulme, 1989). Project delay usually does not occur because of single activity or milestone which project team is unable to complete within the scheduled time interval, it could be the sequence of events that occur and cause extended time to complete the project. Pinto and Prescott (1990) strongly emphasized to spend enough time on project planning. Tukel and Rom (1998) found that the projects, which have long durations, are more likely to be delayed because of different reasons.

If the project time increase the client starts suspecting the timeline of the project as given by the project team and the trust starts diminishing in capability of the project team. While it was found that it happens so due to poor project time

schedule performance (Chitongo & Pretorius, 2018). The initial cost analysis are disturbed whenever the delays and cost overruns occur due to which the projects suffer in terms of time, scope and cost (Kaliba , Muya & Mumba, 2009). Sometimes big projects like construction projects can see unforeseen delays and overrun their time limit and are critical to project success (Jalilia & Forda, 2016)

Hypothesis 1: Project Planning is negatively related to Project Delay

2.2 Mediating Role of Project Awareness between Project Planning and Project Delay

Project awareness and inexperience counts for the fact that the planning and the management of the project is not up to the mark and can move the project towards disastrous consequences (Sambasivan & Soon, 2007). Project awareness is the knowledge of roles and responsibilities, standards, procedures, and project outcomes.

Every project differs in different ways like change is seen in time, scope and cost. Neither can we focus on one or two of these factors while not paying attention to the other nor can we count them as equal. So, a Project Management and its team must be aware of the project outcomes to see set the level of importance of every aspect of the projects (Larsen, Shen, Lindhard & Brunoe, 2015). Inexperienced contractors being unaware of the proper outcomes of the project can cause a major issue, because they should gain experience so that they can plan efficiently and more accurately on the bases of their experience before bidding on the projects. Lack of experience is most effective on delay and may lead to bad consequences (Aziz, 2013). It is seen in any individual who is working in an organization particularly one which is projectized. If an individual is more secure about his/her future then they would have more control over their self-including more emotional stability, job satisfaction, better wellbeing and more motivation to work. The employee will take more interest in the project work and will know what is to be done to get the project success (Cheng, Mauno & Lee, 2013).

To achieve high rate of success for the projects, organizations have experienced project managers and project management methodology. To have a complete definition, projects are enabled by the integrated project team including the project key stakeholders (Locatelli, Mancini, & Romano, 2014). Capability and experience also account of the project awareness of a project management that how well the manager can understand the project so that the project can be delivered in its proper definitions. In the execution phase, if a project is being monitored to validate the process that was defined in project planning for achieving the project output it would bring more benefits (Zwikael & Smyrk, 2011). It can only be achieved when the employee is aware of the project work that is to be done in order to classify project as successful because most of the time employee capabilities can be observed in the execution phase of the project when he has to complete what has been planned in the planning phase. If he is not able to complete the task it will cause the project to delay due to lack of employee awareness about the project. The employees who come from other company might have get the diverse training and development activities from the older company as they are tailored to meet the distinctive requirements of the firm (Cavanaough & Noe, 1999).

There are few workplace characteristics which can raise the employee's capabilities in opposition to this study there are also some workplace features that can even hinder the employee's capabilities (Choi, Anderson & Veilette, 2009). There has to be very fine line between project planning and employee's skills and awareness as there are greater likelihoods that in project planning everybody starts giving prominence to project deliverables and snub the actualities about the manpower through which they want to achieve the project objectives and goals. This result in negligence in creating a workforce for the project that can actually make the plans work. This leads towards a team with lower skill level and low awareness about the project. What needs to be done and when is to be done matters a lot in the domain of project. Each and every individual working for the project must be trained according to the requirement of the project so that we can get the work needed for the project in its full capacity.

Communication plays a vital role in team performance, completion of the project

in successful manner, and applying the frameworks project management efficiently. Van den Hooff & de Ridder, (2004) indicated that effective communication channels is an important need for information sharing among the team members. Accurate and in time sharing of information among the team members leads to better implicit coordination, consequently leading to better project performance (Ralitza, Volzdosla, Sara, McComb, & Stephen, 2003). Shared knowledge helps members of the team to comprehend what is new with the task, encourages them to envision the upcoming occurrences, predict which activities colleagues are probably going to take, along these lines helping them turned out to be more planned (Espinosa, Lerch, Kraut, Salas, & Fiore, 2004).

In local market, once a company hire a human resource, they assume that their resource has all the capabilities and that person is expert in every domain. One person cannot have the knowledge of every field, training the human resource and polishing the skillsets of employees should be the priority of every employer but unfortunately a very few companies in Pakistan are known for providing such facilities to their workers. When organizations get the new projects mostly from the external sources, they shift their focus to customer needs without regards to employee capability to attain the project deliverables on time or even same as customer requirement. Bhattacharya, Gibson, and Doty (2005) argue that if human resource skill set is enhanced it will upsurge the profitability and drive the organization on the way to the new altitude of success. Leading the organization to better handle the project and produce a team that will be able to increase the efficiency and productivity of the project. The team will have better understanding of their roles and how to perform them, eliminating confusion in deciding the projects roles and responsibilities for each and every individual working in the project. So, if any deficiency is left in the planning will be mitigated a well aware workforce.

Recent research on team coordination explains that only the effective teams are able to coordinate with implicit process without recognized planning (Ennabih, Riel & Sasovova, 2013). Project performance in most cases dependent on the coordination which in turn improves the gap level between the team members and

develop the trust values in them. While implicit process coordination is mainly used to align the team towards project outcomes which help to enhance project expectations and project outcomes in terms of completing project on time (Bond-Barnard, Steyn & Fletcher, 2018). Research highlights that the communication improves project performance with the unique approach of human factors which will further proceeds towards the beneficial researches in the context of project team and project goals coordination which should be controlled to meet the expectations, knowledge and the degree of trust through communication (Mller, 2003).

The causes which are important in delay are the conditions of the subsurface, labors with low levels of productivity, financial problem on the part of contractors, planning that is ineffective, project scheduling management of site that is poor, and finance, supervision and type of bidding of project and its awarding award, workforce that in unskillful, delay in revision, approval of documents by the project owners.scope creep by the owner of the project during the project (Marzouk & El-Rasas, 2014). Usually project try to surpass there set time and cost constraints. One reason is that the potential risks are not properly identified for project success. Also the the overconfidence of the project manager can cause the assement of risk in a manaer that is biased (Fabricius & Buttgen, 2015). That suites the project managers will but it will threat for the project in the sense that he may have left a risk unseen or overlooked it as not effective so to suite his own decision not following the formally lead procedures to identify a problem in plans or any other project component that can render the project performance ineffective and can cause the project to halt delaying the project.

Whenever the project plans are made, in those plans the roles and responsibilities of each of the individual playing a part in the project are mentioned clearly and precisely. So, if an employee is subject to perform a task in a project he should be aware of the task he is expected to perform as well as what role he is playing in the project. The employee must be competent enough with the required skill level and technical expertise to perform the task at hand. Otherwise the employee is thought to be not aware of the project. This will result is in a confusion that the

hired individual might not be able to perform the task and we may have wasted the time and money on him. What could be done is the management can hire the source and train him with the skills that are needed for the project in this way the mitigation of a unaware and unskilled employee can be done.

Projects are initiated, planned, executed, controlled and monitored according to the project's lifecycle (Project Management Institute, 2013a, b). In the modern world, the interest in the project management domain has increased significantly, as it enables the organizations to be more effective and competitive in the market (Ika, 2009). When interest in project management increased, organizations started to deliver the projects in an effective way but with the passage of time project complexities increased as organizations tried to achieve the big deliverables through them. It is not possible to meet the customer satisfaction or even acceptance criteria if the project team is not using the proper monitoring practices (Papke-Shields, Beise & Quan, 2010). The monitoring can be done right if the employee is aware with all the project work , roles and responsibilities.

Lack of training and slowness, incompetency , faulty design, faulty market estimates, capability of finance, workers, and the government are the factors which affect a project delivery and completeness on time and in constraints. Different studies are compared and is found that the countries that are developed face the problems that are analogous in nature in there way of advancement. The popular problems include financing and the competency (Hoai, Lee & Lee, 2008). Financing relates to release of fund by the owner of the project while the competency of project team is important for the project. The project is sensitive to many facors outside and inside the organization. As the management of project is not in the capacity to fully control the external variables affecting the project, they must try t minimize the cause of project delay that are internal to the organization. That may be by making proper plans, trained workforce, established procedure, check and interest by senior management in the project and its outcomes.

Fisher, Pillemer and Amabile (2018) researched about the fact that how the task completion turns out to be easier when working in team. Communication and

brainstorming between team members is an important factor which decisively affects the process coordination, planning of the project and participation in the firm or people gathered for the project (Foy, 1994; Smith, 1997). In common, coordination is associated with project performance, team effectiveness, successful teams always communicated too much to form coordination linkage collectively (Hargadon and Bechky, 2006). Also working together and increasing the skills of the other team members using then those skills and team effort for the project work.

For a given project the contractor should also evaluate his ability to undertake the project. He should evaluate the capability of his team, his previous experience that will be adequate for the project, the tools and techniques that are needed for the project to complete successfully (Muhwezi, Acai & Otim, 2014). The result from the study conducted concludes that the number of hours individual put in the project activities may be a consideration that is important thing while planning the involvement of employee's in a health and site promotion program (Hunt, Lederman, Potter, Stoddard & Sorensen, 2000).

Project vary by their nature and in what domain they are being carried out. No two project are same there exist some difference in them that may be difference of cost, time or the place where it is taking place. Projects differing from each other from large to small extent can face same or some time different problems depending upon in which context they are taking place. Examination of different project in depth with respect to their performance in terms of cost and time was done. The comparison of cost and time constraints in different countries show that cost overrun and delays are experienced by most of the projects. Most of the time mote time is taken by the cost as well as cost is increased. It was found that most of the overruns the study identifies have performance that is unique and is troubled by overruns of time and cost. It is considered that such projects will help the professionals and planning individuals to make better plans for the future that are to be undertaken in future (Ahsan & Gunawan, 2010)

If a Management structure is well aware of the consequences of the improper planning, they know that if rework is required it will cause a project delay because

rework itself takes time and resources. Errors occur due to the fact that the project managers lack understanding of the project management in terms of scope and work to be performed. (Doloi, Sawhney, Iyer & Rentala, 2012). Deficiency of the knowledge and tools that are needed for a project leads to failure and stops the progress of the project when executing (Sambasivan & Soon, 2007).

Project manager is seen as a key stakeholder of the project responsible for the completion of project in its boundaries. So, the role of project manager is vital for the project and serves the role of a vital organ such as brain for the project. Th project manager issues order and give the final go a head of the projects deliverables. If the project manager is not competent enough and not aware of the work that needs to be done for the timely and successful completion of the project then the project is at a major risk. Many of the project fail or fail to perform due to incompetent project manager who is not aware of his technical and managerial responsibilities.

Research implies that the best way for the coordination of goals for the project is not compiled yet (Gulati, Wohlgezogen & Zhelyazkov, 2012). If the designs are wrongly interpreted or designed then coordination failure cause which brings complicated situations for coping up the project (Jarzabkowski, Le & Feldman, 2012). Effect of team process coordination mediates the effect on team performance. (Mathieu, Goodwin, Heffner, Salas & Cannon-Bowers, 2000). If the team of the project is not performing well and is not aware of the roles and responsibilities of the project then it may be because of the fact of no training of the team and proper hiring of the team members. The team may not be fully aware of the work and may cause the work to be delay and putting the project behind schedule.

To perform the task as per the required standards of the organization and related industry is considered as the employee's capability (Nassazi, 2013). There are several ways through which the Employee capability could be assessed and some of them are by measuring the compatibility between skills, health or mental strength of the employee and the job that an employee is employed to do (Weil & Woodall, 2005). A capable employee is the one that will perform his duties as asked by the management, but also the management must hire that individual that can fulfill

the role as required from him. If the management fails to hire an employee that is right for the job then the error lies on the side of management who cannot hire a source that fulfill the requirement and the roles expected from him.

Competent personnel are able to do effective implementation of project. This eliminates errors, poor supervision and introduces better communication. The high management or the key stakeholders providing resources to the project manager should ensure the competency and ability of a project owner to manage the projects. (Kaliba , Muya & Mumba, 2009). Any problem in the communication channels in the planning stages of the project can cause misunderstandings and can cause difference in role and responsibilities resulting in delay in project (Sambasivan & Soon, 2007).

An increased clarity in the scope of work comes from the owners and satkeholders by means of project scope. Scope creep in a stage later in the project can cause the project to delay due to change of material and a change in project timeline. If the project team is not aware of the deliverables of the project then the probability of them completing the project and in its completeness will lack what was demanded in the first place. Increase in scope of work may further delay project due to unavailability of appropriate spare resources with the contractors. In fact, increase in scope of work results into a complete drain out of the contractor's resources and reduce his capability to follow the time plan (Doloi, Sawhney, Iyer & Rentala, 2012).

A barrier for completing construction project on time is the shortage and lack of workers that are skilled. The generation of many problems like defects in quality, errors in construction, lower productivity levels of the workers are caused by workforce that is unskillful and have poor performance which effects the overall project's performance. It is inevitable to hire a worker that is unskilled, this effect can be mitigated by proper supervision of work at the site of construction. The technical level and the awareness of project of a worker can be increased by training programs. The results pointed towards one of the potential delays causes as observed by the parties involved are the payment delay, lack of training of the

employee, rework, schedules given by owners that are unrealistic, lack of management strategy for waste, improper planning, and work force that is unskilled. The construction staff's skills must be improved on an urgent basis. The workers should be provided with training programs to polish their skills and techniques used by them regarding costing, schedule, control of time, and analysis of risk. New adoptive approaches to planning must be practiced. This type of strategies allows the performing of planning that is collective in nature, by the involvement of all the stake holders of the project. In addition, the team responsible for planning should monitor the progress of the project and find the solution to problems that are common which lead the project towards delay continuously (Bajjou & Chafi, 2018).

Sometimes organizations believe that their employee has all the capabilities to perform all type of tasks, which shows that there is a lack of clear understanding about the human resource abilities (Weil & Woodall, 2005). This assumption could have a severe impact on the timelines of the project, as management would think the human resource, they have had skill set to achieve the milestones, which were assumed to achieve in the project planning but since they lack in some skills so ultimately it becomes difficult for the team to deliver the project on time.

Hypothesis 2: Project Awareness mediates the relationship between Project Planning and Project Delay

2.3 Moderating Role of Project Governance

Governance is a kind of regulation where the governance body is a part of the system (Mller et al, 2013). It is the authority which keeps a check on the plans and progress of the project. It is practiced by the high-end stake holders which is in most cases the owner or the senior management of the organization. The senior management has the responsibility to practice its authority in form of project governance to properly manage and oversee the work progress in a project. An improper site management results in delays and which then affects the overall efficiency of the work progress of the project (Sambasivan & Soon, 2007).

Project Funding is observed to be a cause of delay which is initiated when an improper planning and lack of governance structure exists in the project environment (Larsen, Shen, Lindhard & Brunoe, 2015). The legal, competition and the changes in culture in an organization environment drives the need for an effective project governance (Weaver, 2017). Governance of projects results in standardization and stability in methods, the structure gets flexible and aligns the governance structure with the strategies of the organizations (Mller, et al., 2014). By the existence of a governance structure we can expect proper check on the procedure and timely availability of the resources as need by the project team. This governing body help the project manager as a facilitator and as well a regulation authority to keep track of the development of the project and if any discrepancies are observed they use the right amount of authority to put the project back on track.

The study conducted by Patanakul pointed towards six problems that are common to project in IT and IS in public sectors. The problems are related to the designing and execution of the system, management of project, project governance and management of contract. It is essential for the large scale project to be handled by the project managers that are experienced to ensure project success (Patanakul, 2014). There are no straightforward solutions to the challenges of cost escalation and schedule delays in road construction projects. There are, however, steps that can be taken to minimize their causes and effects, the major one being the use of efficient project management tools and practices (Kaliba , Muya, Mumba, 2009)

The ruling process that is more than the governing bodies is all about the project governance. The governance is related to verification of performance, power granting, actions and their definition. The governance of project is referred to as the systems, processes, rules and regulations that the finance team must be there to ensure the success of project (Samset, Volden, SINTEF). The existence of a governance system is the proof of some sort of check and balance on the project. The governing body acts like a brain to the project. If the brain is dead the whole project structure will stop working and loose its value. To get the work done some sort of governing mechanism must be there to do that. The level of governance required varies from country to country and project to project some may need a

tight governance while some project can be successfully completed by low level of governance.

Efficiency of team coordination can be challenged under project constraints and effects the project circumstances (Vlaar, Fenema & Tiwari, 2008). Culture of organizations highly affect the synchronization of team (Bullen & Bennett, 1993). Whether the culture is of keeping a check on the project or not. A culture is developed by the senior management of the project governing organization, they set up the norms and rules. According to researchers, implicit coordination involves only if team members have to settle through the needs of others demands and adjusting them through communication or planning with others. (Rico, Sanchez-Manzanares, Gil, & Gibson, 2008).

Supervision and management of site should be in a proper manner. The project governance structure should assign administration to make necessary arrangements to finalize the project in its predefined time, scope and cost (Aziz, 2013). If a system is developed in such a way that it ensure good management of site and supervision is up to the mark then it can play its role in planning and scheduling that is effective and efficient (Marzouk & El-Rasas, 2014). But if the system is not that is needed for the project then the project success can go otherwise wasting the efforts of the project team and the individuals working in the project. So proper supervision and management is necessary for the project to continue smoothly until the closing of the project. To get the customer to satisfy the management must take full interest in the project for getting future business and more project success.

Clients are a major stakeholder of the project and may be also the part of governing structure of the project so it is also the duty of the client of make sure that the project is properly planned and the cost of the work are made on time so that the work does not stops halfway just because of the funds not being released on time. This will not only cause the work to stop and project to delay but also will result in the increase of cost of the project due to inflation (Muhwezi, Acai, Otim, 2014). So, this way client also acts as a governing body with a project providing direction and see if all the requirements that were planned in the start of the project are

being met or not. To complete the project in time the owners of the project must be efficient enough to pass the decision as fast as possible to remove project delays resulting in a proper form of governance over the project (Aziz, 2013).

The impact of different management styles on performances multiple dimensions. The regression analysis that is extensive in nature has complicated the understanding of management. The results show that the growing demand of better projects and less time is given for projects requires a mixture of emergent and planned techniques (Lewis, Welsh, Dehler & Green, 2002). So, a well-planned project must be undertaken with the use of emergent techniques when needed according to the need of the situation. The way of managing a project varies with time and with context of the situation. So, the plans must be ready on time and should also be proper for the completion of projects. The governing body has to decide that type of strategy must be undertaken depending upon the situation and providing resources to the project team with the tools to get what is asked from them.

Projects which are not completed on time or unable to produce the desired project output, diminish the throughput and organizational value (Lee et al., 2011; Shenhar & Dvir, 2007). Planning of the project, then making sure all the activities are performed as per the process that was defined in project planning using the underlying process and completing the project on time or with minimum variation are all interconnected with each other. It is sort of a chain where all of these are interrelated and if any of the links halts, it disturbs the whole chain. The chain is under the supervision of the governing body of the project which may be the senior management of the organization who has the responsibility to check the performance of the project as compared to the plans which are made in the start of the project.

Whenever a project is delaying the main causes which play their role in the delay are lack of effective planning and ineffective schedule of the project, hurdles by the contractors in finance of the project, scope creep, lack of site management and supervisions, lower level of productivity of employees, unqualified team, shortage of tools and material (Marzouk & El-Rasas, 2014). These causes have their roots in

lack of project governance, if the governing body keeps a check on all the variation from the initiation of the project the effects of these causes can be minimized to an extent that the project can be completed on its set parameters.

That is the reason why after the project manager most of the importance is given to the senior management which in most of the cases acts like the governing body to give direction when necessary and facilitate the project manager and his team in solving the hurdles in the way of project completion.

When companies which are operating in Pakistan start their project, they keep less focus on the governance of the projects and they suspect that whatever they have planned in start, they will be able to achieve it as it is in the end but unfortunately unforeseen situations come in every other project. Al-Khalil and Al-Ghafly (1999) analyzed and reported that lack of agreement among project stakeholder's result in the project delays. The lack of governance in the project undertaken in Pakistan is one of the major culprits for their failure and continue to be a major problem in completing the projects. Either the stakeholder doesnt pay much attention towards the problem once they have initiated the project or they lack the competency to supervise it. Most of the time this results in lack of funds from the owners of the project and halts the progress of the project. The project is then stay uncompleted with all the effort and money inverted in it going to waste.

The governing bodies of the project include the senior management, owners, the sponsor of the project that are basically providing funds for caring out the project to the project manager. Although in a projectized environment the main head of the project is the project manager but he is also answerable to the higher authorities. The finances and the resources that he needs are provided by the senior management. So, the governing body of the project that is the senior management play an important role in the project completion. Not only that they provide the project manager with the resources but also keep a check on the project deliverables and see if the resources provided are put up to good use. The act as a enforcing agent for the rules and regulation in the project. They maintain

order and ensure that the project sponsor which is the customer get satisfied with the outcome of the project.

If management has an insight about the employee's capabilities and they know that, their human resource lack in few skillsets then they can even outsource the few tasks (Greer, Youngblood & Gray, 1999). The other researcher even explains it in more detail and as per them, there is a growing trend toward outsourcing (Cook, 1999; Greer et al., 1999). In this way by keeping a check by the governing body they will have the knowledge about the capability of the project team, what to expect from them and what to do to get the project done on time. If needed for a deliverable of the project the project management can train its employees in order to complete the task at hand. They have to invest in their workforce to get advantage of their skills and expertise not only for that project but for future projects as well. That is why the Governing body must have a futuristic approach and should grab an opportunity before it slips from there hands.

Project Based Organizations should manage different subunits of the organization by using different multi knowledge strategies of governance (Pemsel & Mller, 2012). The project governance structure must be trusted by people to give them proper direction and frame work for the organization and completion of project to keep a check on the planning and people (Mller et al, 2013). Companies who want their business to touch the skies and to remain competitive in the market spend money on the training and development activities of their employees (Barney, 1991). Doing so they are not only increasing the skills of the employee but also the domain and areas in which their organization can play their part. Opening doors to new type of projects with the same workforce that has higher skill and competency level, who understand the project more accurately and smoothly. It is just an investment that senior management makes to keep themselves in the market. The governing body must then supervise and keep check on their skilled employee on whom they have invested that the employee must work as required by the task.

An employee can enhance and strengthen the capabilities by developing the skillset

and use the effective learning exchange system to support the learning and continues improvement or on the other hand, an employer can also provide such opportunities and methods to their employees to improve their capabilities to get the job done, as it will eventually benefit the organization. Gainey and Klass (2003) the working conditions and environment have an indirect impact on employee capability; therefore, the employer should provide a good working condition. A healthy environment motivates the worker to work and the management must govern the project in such a way that in that healthy environment the employee should be able to follow the laid down procedures and direction from the management and whats decided in the planning phase of the project. Creating a environment of mutual understanding among the senior management and individual working on the project where the senior management provides the resources and keeps a check while the employee utilize those resources and his capabilities in order to deliver the project.

The governing body refers to an entity that give the project manager the opportunity to manage a project. The awarding of the project is not only the responsibility of the project but to oversee it in such a way that the project manager and his team must have all the resources that they need, training the employees if needed, releasing funds, supervise, giving direction, lay down rules and regulation for the team to follow and ensure the customer satisfaction by the project. The characteristic of a governance structure are not limited to these but project governance expands its circle with the size and complexity of the project require a more robust level of supervision and involvement by the key senior management stakeholders of the project.

Failure of the project is a failure of the Governance in organization. Good governance is about making the right decisions and prevention of any errors and allowing the management to lay the foundation of the project. To grow and innovate thus gaining the strategic completion of organization (Too & Weaver, 2014). Delayed decision from owner, rework, labor incompetence and reluctance to change in work, improper planning are the overall reason of delay in construction industry (Doloi , Sawhney , Iyer & Rentala, 2012).

Hypothesis 3: Project Governance moderates the relationship between Project Planning and Project Awareness

2.4   Theoretical Framework
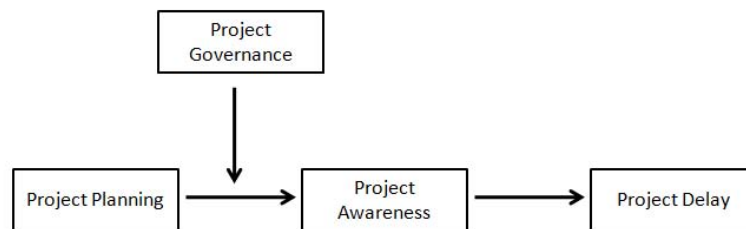
FIGURE 2.1: Theoretical Framework

It can be seen in the theoretical frame work the Independent variable is project planning, Moderator is the project governance, Mediator is the project awareness and Dependent variable is project delay.

H_1 : Hypothesis one corresponds to the direct relation of project planning with project delay.

H_2 : Hypothesis two corresponds to the mediating role of project awareness in this relation between project planning and project delay.

H_3 : Hypothesis three corresponds the role of project governance as moderator between project planning and project awareness.

It is moderated mediation.

While observing the theoretical frame work we can see how this model works for an organization that undertakes projects. The model reflects the effect of project planning on the project delay, how the project planning is related to project delay and how it can effect the time line of the project if the project in properly planned or poorly planned. Also if the individuals working in the project are aware of what needs to be done and all the needs of the project are known to the, how will this effect the delay of the project and its timeline. It means having

a good skilled workforce that knows what is to done and when is to be done. The project governance will play its role as a moderator to strengthen or weakan the relationship as project governance is the check and balance by the senior management to keep the project bind to its constraints and urging the working team to follow the set rules and regulation for the timely completion of the project.

By observing the model we can see how the Henri Fayols theory of administration will play its role in the current study. The theory has its roots in the planning, coordination, commanding, controlling and organizing of the projects in way for making it successful. Our models fits on most of the components if this theory as we are is cussing planning, governance, awareness and delay of the project. The interaction of employee with the project and the management is the essence of this theory and also a key component of our study that the planning by project team effects the timeline of the project and if the individual working in the project is aware of the work it can migitage the chances of having delay. Also if the senior management involved in the project has keepen a check on the project development while employee having follow the set rules can increase the chances of better project planning and the employees can have a better understanding of the project.

So we can conclude that the theory perfectly fit on out model and can become the bases for explaining our results. The under pining theory will help us find direction in the research to reach our objective to find the end result of research undertaken.

Chapter 3

Research Methodology

This chapter include details about the methods and the tools used to get the results for this specific study. Detailed elaboration has been given regarding research design, the focused population, the technique used for sampling, the characteristics of the sample, instruments and the reliabilities of the items used to measure the effect of variables in the current study.

3.1 Research Design

3.1.1 Type of Study

The Study under consideration will put light on the impact of project planning on the project delay. We will be targeting the project-based companies in Pakistan working right now in the field of civil, IT and mechanical based projects to represent the population under consideration in this study. To get data from the individual working in these companies to make our results valid. The target of distributing 400 questionnaires was set out of which we had received 288 responses back from the respondents from the sample population. The results from the study the can be made general for all the population based on the sample results because sample represents all the population.

3.1.2 Unit of analysis

In any study conducted the unit of analysis is one of the most important components of the research. The unit of analysis can range from a single individual towards a bigger and wider unit that may be groups, cultures, organizations, etc. Our study is the observing the impact of project planning on the project delay with the mediator project awareness and the moderator project governance, as our research suggests that these are all human related factors so the unit of analysis for our study will be the project team member and individual working in the project.

3.1.3 Population and Sample

The study undertaken focuses on the projects planning and the delay caused in the projects of the projects done in Pakistan. So the Population that is under consideration in the current study are the project managers, project team, employees working in the projects, project stakeholders and the senior management overseeing the development of the projects.

Data will be collected from the people who will be working on projects from public and private organizations Working in Islamabad and Rawalpindi. The data will be collected from people by means of a questionnaire. The sample will be from different kinds of project may that be domestic or international, big projects or small projects, projects from different domains so that we can get a generalized view of the impact of project planning on the project delay. Most of the projects are taken from civil, IT and the companies related to mechanical projects i.e Global rescue, Techlogix, Eighteen Heights, KRL etc. Because in these kinds of projects most of the time a certain materialistic product is involved that is to be delivered on time and within the set cost unlike the R & D projects. The questionnaire of this study was printed in hard form and were distributed among the respondents.

3.1.4 Sampling Technique

It is quite impossible to collect the data from an entire population so we choose a sample from the population to represent our entire population. This sampling is done due the fact that limited resources and time is available certain other constrains limit the data collection from the entire population. That is the reason of choosing a sample from the population which will have all the characteristics of the population and will act as a unit for the study to be conducted on them. The results found from the sample can then be generalized for all the population.

We used convenience sampling to collect data for impact of project planning on project delay with project awareness as a mediator and project governance as a moderator. At least 400 questionnaires will be distributed among the sample. Furthermore, in the first section each respondent will be providing information related to demographics such as gender, education, age, job sector and work experience. While in the second section we will have questions related to our variables. The questionnaire distribution and collection were done physically. A cover letter was used, which consisted of scope of the study, assurance of anonymity and confidentiality and that the participation will be voluntary.

All the data of a single questionnaire was reported by a single member of the sample and no other individual had a part to play in it. The chances of having common method bias was removed in such a way that the questionnaire had no such item in which the respondent is reporting is own performance or such.

3.2 Measures

For Project Planning, Project governance and Project delay 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 Project Awareness 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. The respondents will self-report all the items without the interference of the researcher.

3.3 Instrument

The questionnaire is to be filled by each member individually. The questionnaire measures the Project Planning, Project awareness, Project Governance and Project Delay.

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). Items like "When my team decides on what we will try to accomplish in the short term, we kept in mind our long-term objectives." and "My team revised our goals to determine if they need revising." are included in this instrument. 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.

3.3.2 Project Awareness

Project Awareness will be reported by the project team and will be measured using a 4-item scale. This instrument adopted was developed by (Lewis, Welsh, and Dehler, 2002). It includes items like "Clear understanding of technical objectives" and "Show current technical knowledge". Likert scale was used to get responses having following points, 1(Strongly Disagree), 2(Disagree), 3(Neutral), 4(Agree), 5(Strongly Agree). This scale was adopted from original source and respondents rated items of this questionnaire on this scale.

3.3.3 Project Governance

Project Governance will be rated by the employee using a 10 items scale to measure the performance of the employee. It was adopted from (Mller, Lecoeuvre, 2014). Items such as "In my organization decisions are made in the best interest of the shareholders and owners of the organization and their Return on Investment (RoI)" and "In my organization the long-term objective is to maximize value for the owners of the organization" are included in this scale. 7 points Likert scale was used by original source including following range, 1(Strongly Disagree), 2(Disagree), 3(Slightly Disagree), 4(Neutral), 5(Slightly Agree), 6(Agree), 7(Strongly Agree). Responses were obtained using this scale against items provided in this questionnaire in order to achieve precise and unbiased data.

3.3.4 Project Delay

It will be rated by the employee on the basis of the project completion schedule. This instrument includes 4 items and is adopted from (Bjorvatn, Wald, 2018). It includes items like "The project experienced significant delays" and "Unexpected interruptions were common.". 7 scale Likert scale was used by original source including the following range points, 1(Strongly Disagree), 2(Disagree), 3(Slightly Disagree), 4(Neutral), 5(Slightly Agree), 6(Agree), 7(Strongly Agree). Responses were recorded against the questionnaire using this scale and data was analysed.

TABLE 3.1: Instruments

Variables	Source	Item
Project Planning	Lapierre & Allen (2012)	10
Project Awareness	Lewis, Welsh, & Dehler (2002)	4
Project Governance	Mller & Lecoeuvre (2014)	10
Project Delay	Bjorvatn & Wald (2018)	4

3.4   Scales Reliability

Reliability is a measure that how much consistent results can we 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 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 is 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 higher the value of Cronbach alpha higher will be the reliability of the scale used and the lower the value of Cronbach alpha lower will be the reliability of the scale used. In Table 3.7 below, for the scales used the Cronbach alpha values are mentioned. For Project Planning, Project Governance and Project delay the values of Cronbach alpha are greater than 0.7 making them a reliable scale to measure the variable in the contect of Pakistan while as the Cronbach Alpha value for Project Awareness is greater than 0.6 we can accept this value on the basis on low number of item of Project Awareness hence making it an acceptable reliability score.

TABLE 3.2: Scale Reliabilities

Variables	Cronbach Alpha	Item
Project Planning	0.873	10
Project Awareness	0.616	4
Project Governance	0.740	10
Project Delay	0.789	4

3.5 Technique for Data Analysis

For the study under consideration the data was collected for 288 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 first 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), PA (Project Awareness), PG (Project Governance) and PD (Project Delay).

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. Descriptive statistics was conducted by using the numerical values.

5. The reliability of all the variables present in the model was checked using Cronbach alpha.

6. After that we moved towards to see the correlation between the variables under study using the Pearsons Correlation.

7. After all the test to make our model seem fit for study, we moved towards the Process of regression analysis, first of all simple linear regression analysis was conducted between the Independent Variable (Project Planning) and the Dependent Variable (Project Delay) to test our hypothesis one.

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.

3.6   Control Variable

Two of the demographics, Gender and Education were taken as control variables because it can significantly affect the relationship between the direct and indirect variable. So, it was necessary to control it. From the ANOVA analysis the significance value (p) for gender and education was found to be less than 0.05. That is the reason why both of these variables will be controlled while carrying out the regression analysis. Hence categorizing them as control variables.

Chapter 4

Data Analysis and Results

In this chapter results of the current study are comprised in it. Descriptive statistics, correlation analysis results, alpha reliabilities, and results from linear, mediation and moderation analysis are presented in both narrative and tabular form.

4.1 Descriptive Statistics

The Descriptive statistics of the variables such as mean and standard deviations, correlations and Cronbach alpha reliabilities are discussed in this chapter. These values are presented in table 4.1. The alpha reliabilities of the variables under consideration are in the suitable range while bivariate correlation is also in the intended direction as required by our model assumptions. The mean of the variables is shown in table 4.1 showing the data's central tendency.

4.2 Sample Characteristics

The demographics used in this study are gender of the respondents, education level of the respondents, age group of the respondents, 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 still the ratio of male respondents was found to be more than female respondents. The data collected shows that from the 288 responses collected from the respondents 59.7% of the respondents were male and the percentage of female respondents was found to be 40.3%.

TABLE 4.1: Gender Distribution

Gender	Frequency	Percent
Male	172	59.7
Female	116	40.3
Total	288	100

4.2.2 Education

Education is vital part of society's knowledge base. The more educated people there are the better they will understand the significance of the study and will be better able to answer the question asked.

According to education level 1.4% were intermediate, 39.2% were graduates, 56.9% had done masters and 2.4% had a PhD background from total of 288 responds received from the respondents.

TABLE 4.2: Education Distribution

Education	Frequency	Percent
Intermediate	4	1.4
Graduation	113	39.2
Masters	164	56.9
PhD	7	2.4
Total	288	100

4.2.3 Age Group

The demographic of age is considered a bit private because sometimes respondents do not want to disclose their age. Age tells us about the mental status of a respondent. The level of maturity he/she has and how much correctly he can answer the asked question.

While with respect to age group 83.7% belonged to 20-30 years of age, 12.5% were from 31-40 age group and 3.8% belonged to the age group of 41-50 years.

TABLE 4.3: Age Distribution

Age	Frequency	Percent
20-30	241	83.7
31-40	36	12.5
41-50	11	3.8
51-60	0	0
61-above	0	0
Total	288	100

4.2.4 Job Sector

The demographic of job sector sees what percentage of respondents belong to public and private sector. How many respondents are doing job in government verses the respondents doing job in private organizations.

According to job sector 13.5% belonged to public jobs while 86.5% belonged to private jobs.

TABLE 4.4: Job Sector Distribution

Job Sector	Frequency	Percent
Public	39	13.5
Private	249	86.5
Total	288	100

4.2.5 Experience

To collect information about the experience of the respondent it was divided into 5 groups. The experience is a level of professional time a respondent has spent in the job or the field. Experience level tells us about the years of exposure an individual has in the job market or in any professional field.

With respect to experience level 81.9% of people had an experience of 1-5 years, 9.4% had 6-10 years of experience, 5.6% had an experience of 11-15 years, while .7% and 2.4% of people had an experience of 16-20 years and more than 20 years respectively.

TABLE 4.5: Experience Distribution

Experience	Frequency	Percent
1-5	236	81.9
6-10	27	9.4
11-15	16	5.6
16-20	2	0.7
More than 20	7	2.4
Total	288	100

4.3   Correlation Analysis

The reliabilities of the variables are shown in parenthesis in Table 4.6.

TABLE 4.6: Means, standard deviations, coefficient alpha reliabilities, and inter-correlations

Variables	Mean	SD	1	2	3	4
1 PP	5.56	**.93**	(.87)			
2 PA	4.19	**.51**	.40**	(.61)		
3 PG	5.13	**.79**	.33**	.43**	(.74)	
4 PD	3.77	**1.45**	-.37**	-.017	-.103	(.78)

*N=288 ,*p < 0.05 **p < 0.01. Correlation is significant at 0.01 levels (2-tailed); Correlation is significant at 0.05 levels (2-tailed); alpha reliabilities are given in parentheses.*

For this study n = 288, PP = Project Planning, PA = Project awareness, PG = Project Governance, PD = Project Delay

Table 4.6 exhibits the descriptive statistics such as mean and standard deviations, correlations, and Cronbach alpha reliabilities. Correlations of Project Planning with Project Awareness (r = 0.40, p\ 0.01), Project Governance (r = 0.33, p\

0.01) and Project Delay (r = -0.37, p\ 0.01) were significant. Correlation of Project Awareness with Project Governance (r = 0.43, p\ 0.01) is significant while it is insignificant with project delay (r = -0.017). Correlation of Project governance with project delay is also not significant (r = -0.103). The Cronbach for evaluation of internal consistency alpha reliabilities were used. Overall the high Cronbach alpha value is observed which is observed to be 0.87.

The reliability and the relationship of the variables was a result of Cronbach alpha and Correlation analysis done is SPSS. Reliability is a measure of how much reliable the scale is and correlation analysis tells us about the linear relationship between the variables.

4.4 Regression Analysis

To investigate the link between independent and dependent variable a simple linear regression analysis is run. Regression analysis shows the dependent variable uniqueness which varies with any of change in independent variable. We check that how much unit change a variable is bringing in another variable or whether this change is positive or negative. So, table below will describe the relation between independent and dependent variable through a simple regression change that how much change it is bringing and what is the nature of the impact.

Results of regression analysis are shown in the Table 4.7.

TABLE 4.7: Simple Regression Analysis

Predictors	Project Delay			
	β	R^2	$AdjR^2$	ΔR^2
Project Planning	-.353**	0.276	0.268	0.12

*= p<0.05, **= p<0.001

In accordance to Hypothesis 1 the Project planning is negatively affecting Project Delay. The relationship is negative i.e. increase in project planning will decrease

the delay in the projects and decrease in project planning will increase the delay. The results demonstrate, (β=-.354, p/0.000) that β value is negative so it is negatively affecting and the value of ΔR^2 is .120 which means that project planning brings a negative change of 12% in project delay. These results show that Hypothesis 1 is accepted which is negative impact of project planning on project delay.

In the present study, X denotes the variable that is Project planning and Y denotes the variable Project delay. The input variable is called X and the outcome variable is called Y.

In pictorial form unmediated model is
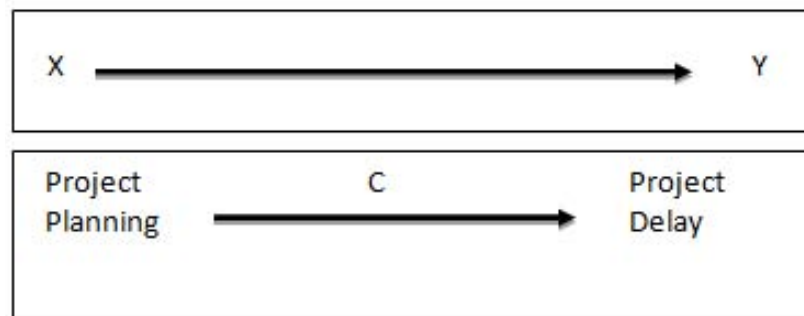
FIGURE 4.1: Unmediated Model

4.5 Mediation Analysis

In present study regression analysis of Preacher and Hayes Process was run by using project awareness as mediator between project planning and project delay. The both paths must be significant for mediation, Independent Variable to mediator and then mediator to Dependent Variable. If anyone of the path is not significant then there is no mediation. The mediation analysis for the current study is as follow.

Effect of Project Awareness as a mediator (M) between the Project Planning (IV) and Project Delay (DV)

TABLE 4.8: Results for Direct Effects and Total Effects Mediation Analysis

IV	Effect of IV on M	Effect of M on DV	Direct Effect	Total Effect	Bootstrapping Results for Indirect Effect	
					LL 95% CI	UL95% CI
Project Planning	.234**	.336**	-.6313**	-.5525**	0.0133	0.158

*n=288, IV=independent variable, M=mediator, DV=dependent variable, LL=Lower limit, UL= Upper limit, CI= Confidence Interval *p<.05; **p<.01; ***p<.001*

In the current study Hypothesis 2 predicts that the relationship between project planning and project delay is mediated by the employee performance. The upper and lower limits are .0133 and .1580 respectively for the indirect effect of project planning on the project delay via project awareness, while in the confidence level of 95% there is no zero present which can be seen in table 10. Number of bootstrap samples is taken as 5000. So, our hypothesis 2 is accepted based on that the project awareness plays the role of a mediator between project planning and project delay. It is the case of Partial Mediation because the direct effect between IV and DV is also significant and the path between IV and moderator and between moderator and DV is also significant. So, this case tells that this Partial Mediation where all the three paths are significant. The following figure show the relationship of IV, DV and the Mediator which is denoted by M.
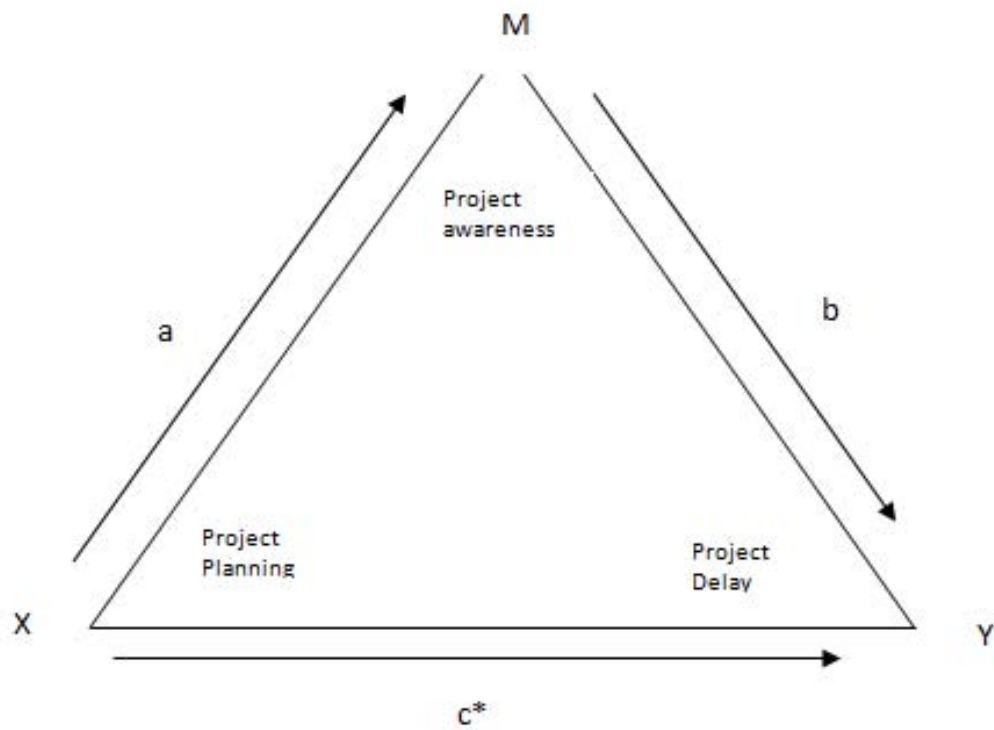
FIGURE 4.2: Mediated Model

The following figure exhibits the indirect effect of project planning on project delay. The coefficients of path a, b, and c* are presented in the figure. Where a = .234, b = .336, c* = -.631
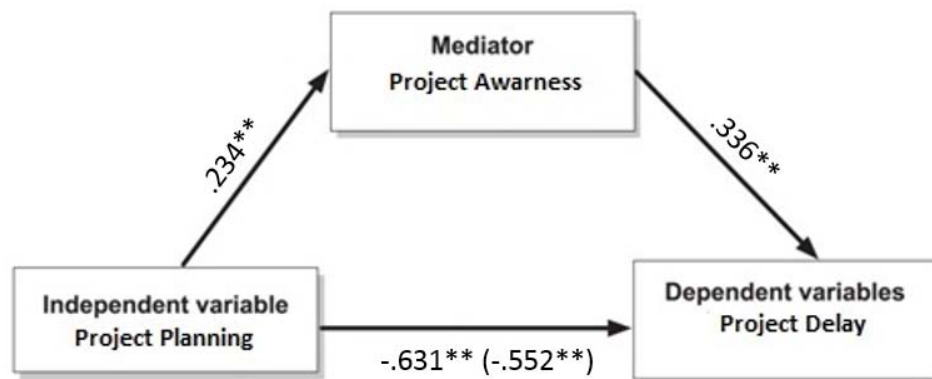

FIGURE 4.3: Coefficients of Mediated Model

4.6   Moderation Analysis

TABLE 4.9: Moderation Analysis for Project Governance on relationship of
Project Planning and Project Awareness

Variables	B	SE	T	P	LLCI	ULCI
					95% CI	95% CI
Constant	1.50	.9707	1.5553	.1210	-4.011	3.4206
Project Planning*						
Project Governance	-.029	.0344	-.8487	.3962	-.0969	.0358
Project Awareness						

n=288; **p <.01

According to the Hypothesis 3, in the current study the more project governance the project planning increases positively resulting in more project awareness and it moderates the project planning and project awareness for this study. From table 11, it can be seen that in the zero is present in the 95% confidence level between the upper and lower limits of -.0969 and .0358 of the interaction terms which moderates on the relation between Project Planning and Project awareness. The value of R2-Change is .0019 but the value of p is .3962 which means there is no moderation in this case. These results show that Hypothesis 3 is rejected which states that Project Governance moderates the relationship between project planning and project awareness such that it strengthens the relationship.

4.7   Summary of Acceptance and Rejection of Hypothesis Proposed

After conducting the analysis, we have the results which will help us to accept and reject the hypothesis based on the results. The acceptance and rejection of the results is based upon the final results of correlation and regression analysis conducted on the relationships between the variables under consideration in this

study. This section summarizes the results and show us which of the hypothesis we will accept and which are going to be rejected in the study. The results are summarized in the following Table 4.10.

TABLE 4.10: Summary of Results

Hypothesis	Statement	Result
H_1	Project Planning is negatively related to Project Delay	Accepted
H_2	Project Awareness mediates the relationship between Project Planning and Project Delay	Accepted
H_3	Project Governance moderates the relationship between Project Planning and Project Awareness	Rejected

The summarized results show that the Hypothesis 1 and the Hypothesis 2 are accepted on the basis if the results from the analysis and Hypothesis 3 is rejected on the same bases. The results from the analysis are found to be true and are accepted as valid on the bases of accurate data analysis. These results represent the acceptance and rejection of the hypothesis in the context of Pakistan.

So, we can conclude on the bases of our results that project planning is negatively related to project delay, Project Awareness mediates the relationship between the relationship between Project Planning and Project Delay and the role of Project Governance in moderating the relationship between Project Planning and Project Delay is found to be insignificant.

Chapter 5

Discussion and Conclusion

The objective of the study was to observe the impact of project planning on project delay in this relationship project awareness was taken as a mediator while the project governance was taken as a moderator giving us a moderated mediation. The analysis was conducted on the data collected from different individuals which are related to various types of projects in the Pakistan. This type of studies conducted in the context of Pakistan is very rare.

We aimed to test our three hypotheses which are Project planning and project delay are directly related, Project awareness mediates the relationship between project planning and project delay and project governance. We tested these hypotheses from the data collected from 288 respondents. The results section summarizes the hypothesis results. The present study has achieved most of the objective intended from this study which are the direct effect of project planning on project delay, the effect of project awareness of an employee to complete the project in its given timeline, The effect of governance practices on the project. Testing the research model in the context of Pakistan. The Project planning is negatively related to project delay is found to be true and is according to the suggested hypothesis.

The study undertaken showed us that the major effects of hypothesis are supported. The results showed that Project planning has a significant effect on project delay and causes it to reduce if the planning is done properly. It is widely seen that

the more the planning the less the delay in a project and vice versa. Project planning is negatively related to project delay in the context of Pakistan. This result from this study is consistent with the studied conducted by various researchers in this domain. According to the study conducted by Sweis, Sweis, Hammad and Shboul (2008) poor scheduling and planning were ranked the most important delay culprit as ranked by the consultant and the owners of the project. Abdullah, Alaloul, Liew and Mohammed (2018) conducted a study to find the time and cost overruns contributors. They found that out of 176 factors the lack of skill of sub-contractor, poor planning and poor scheduling were the top most factors causing delay respectively. Sambasivan, Deepak, Salim and Ponniah (2015) found out the factors that are top ranked in different studies, these factors are payment delay, improper planning, poor management of project, conditions of site and management and problems related to material.

The key factors in the construction industry are planning and scheduling which are vital for the project's success. Half of the time the scheduled task is not executed on time in the traditional planning and scheduling system. This happens due to the fact that the work is assigned to the contractor and sub-contractors, in order to complete the master schedule but without taking the in consideration the factors that can affect the execution of the project such as availability of resources and materials when needed, also the lack of funds and check and balance by the governing body. Furthermore, continuous monitoring must be conducted to observe the progress of the project in order to avoid delay in the projects (Bajjou & Chafi, 2018). As a result of a study conducted the delays are caused by poor planning, scope creep, financial constraints and poor scheduling. They continue to be the major contributor to project delay (Sweis , Sweis , Hammad & Shboul, 2008).

It can be observed that our results are in concurrent with the studies conducted in the different part of the world that planning is important for mitigating the risk of project delay or else the poor project planning will cause the project to delay and is one of the major causes of this effect. To have make a product development successful the use of planned and emergent activates must be concurrent (Lewis,

Welsh, Dehler & Green, 2002). Project managers observed that poor planning was the most significant delay cause influenced by consultant own perception. While according to contractors the delay caused on their part was due to lack of planning and scheduling (Mpofu, Ochieng, Pretorius & Moobela).

The second hypothesis concludes that the project awareness mediates the relationship between project planning and project delay. This hypothesis was also accepted from the results and analysis conducted. This mediating effect of project is found to be significant and is according to our assumptions. This result is consistent with the studied conducted by different researchers around the globe and in different project domains. The smaller the project the more the employee will have higher levels of awareness and the participation will be more (Hunt, Lederman, Potter, Stoddard & Sorensen, 2000). This concludes that if the project is small the project awareness of an employee will be high and delay will be low. The employee will participate more and will affect the timeline of the project. Timely execution of the plans at the scheduled time is important for the contractor as well as the investor but even after proper planning and organized work risk of delay is found to be in effect due to lack of employee awareness and participation. Somehow many tools to support the management of work we see delays keep coming up in the projects (Gluszak & Lesniak, 2015).

The most crucial task that is to be done by the contractor is the selection of a project manager that is competent. The experience of managing alike projects, expertise regarding industry and the knowledge of Project management are needed by a project manager to manage the project successfully. The contractor or the senior management should give the required authority to the project manager regarding finances and resources. The manager should be aware what are his responsibilities and what the senior managements expect him to do. Afterwards the project manager is responsible to gather a team which is competent and are dedicated to plan, execute, contracts, and procure to complete the project in the given constraints and conditions. While having a project team that are incompetent can cause poor project planning, faulty estimates, schedules that are inaccurate and

delay can be observed in procurement leading the project towards failure (Wasim & Khalidi, 2018).

On the other hand, if the project manager is over confident and does not follow the standards and procedures then the project can be delayed due to his negligence. If he does the opposite and follow the procedures and is fully aware of what is need to be done than it can considerably reduce the project delay. The project managers on an average have the tendency to do overconfident decisions which means that execution is likely to deviate from the plans. This happens because the project manager thinks due to overconfidence that deviations from plans are less than what they are actually are (Fabricius & Buttgen, 2015).

How the project manager's awareness and emotional intelligence is linked to the success of the project has its practical implications in the domain of recruitment and development of management. The studies suggest that the hiring of project managers should be such that they have high level of emotional intelligence and awareness to get high levels of positive work attitude, like satisfaction of job and trust among the peers. At the very least the senior manager should be aware of the trust on the project manager and his job satisfaction that can boost the project success in difficult situations (Rezvani et al, 2016). The five most important and widely seen delay causes include lack of poor site management and supervision, poor project management, poor management of site, changes in design and the difficulties in finance (Le-Hoai, Lee & Lee, 2008).

From the statistical analysis conducted on the data collected from the study done by Bajjou and Chafi revealed top ten delay causes which included employees having lack of training, poor planning, lack of collective planning and skill less employee. These study revelations can help the project managers to guide their efforts to improve the project's success the (Bajjou & Chafi, 2018). Al-Hazim, Salem and Ahmad (2017) found out that for reducing the delay risk while the execution of a project that the project managers should put most of their focus on planning, making scheduling and the evaluation of the cost. Likewise, to fulfill the plans of the project's requirement the implementation of organization and process of management must be applied. For the management to be successful the projects

have to follow procedures and standards to mitigate problems and prepare the contingency plans so that the risk of delay can be minimized.

Most of the delay causes are related to management and humans' problems. Boasting project manager's abilities and the employees was emergent and needed. The human resource training is needed and is in demand. Having a vast workforce was not more important than having a quality workforce which are aware of their roles, responsibilities and technical abilities (Le-Hoai, Lee & Lee, 2008). So that is why project awareness mediates the relationship between project planning and project delay, it is concluded that project awareness also is necessary for the project to be on time and to mitigate the delay causes.

The third hypothesis was rejected due to insignificant p value, which makes the null hypothesis accepted. According to hypothesis 3 is Project Governance moderates the relationship between project planning and project awareness. The governance of the project moderates the relationship but it was rejected on the basis of the results from regression analysis. Results showed that project governance do not moderate the relationship. Project awareness is not significantly affected by project governance. This concludes the fact that project governance will not affect the project awareness and project planning relationship in the context of Pakistan. Or so we can say that having a project governance or no project governance will not have an effect on enhancing the capabilities of the employees or the project manager.

This result is opposite to what was found in the studies conducted by other researchers like to have good governance for projects that are large scale, the management can set up a PMO to oversee the projects health. The office will set up rules and standards to make sure that large scale projects managed according to the set standards. Range of these standards may be from control of finance to governance and the oversight by the senior management (Patanakul, 2014). The lack of a senior owner of a project who is experienced can direct to poor project governance. While undertaking a large-scale project the management must assign a senior responsible owner of the project to provide good governance over the

whole project. The owner of the project must be dedicated and his authority must be harmonic with his roles and responsibilities (Patanakul, 2014).

This finding is opposed to other studies is may be due to the change of context of the research because the other studies were conducted outside Pakistan. It is seen in many cases that in Pakistan's context the studies show different results from the studied from outside Pakistan. This is due to the fact that employee in Pakistan has a different type of personality and acts differently from the employee working outside Pakistan. Literature study suggested that there are four different factors which as input to projects which are organizational, managerial, technical and human that were affecting the project activates planning. The studied revealed that vital project activities are not affected by the human factors (Tesfaye, Lemma, Berhan & Beshah, 2017).

So, we conclude that the project planning is negatively related to project delay, project awareness mediates the relationship between project planning and project delay and at last the project governance does not moderates the relationship of project planning and project awareness.

The underpinning theory which is Henry Fayol's Administrative theory supports the accepted hypothesis and elaborates us that the importance of planning, and organizing the project by directing the employee in the right direction with the right amount of dedication. The project has to be planned, controlled, organized, coordinating with the peers, commanding and maintain control over the project. Every part of the project must be planned and scheduled for in order to get the required results without the effect of delay.

5.1 Practical and Theoretical Contribution

The study has both theoretical and practical implication in the context of Pakistan. Based on theoretical perspective, this study contributes in literature for the insight in project planning, project awareness, project governance and project delay. The current study has contributed to the literature of project management in project plannings domain. This contribution towards finding the impact of project

planning on project delay is very important as limited literature is available on this in the context of Pakistan.

This study has summarized the impact of project planning on the project delay by analyzing the role of project awareness as a mediator. The findings of this study are relevant to the researchers and practitioners in the domain of project management. This study highlights the importance of project planning for a project in the light of projects carried out in Pakistan. The findings will be helpful for the new researchers to explore different aspects of project management in the scheduling and planning domain in which not much research has been done in Pakistan. This study recommends the project managers and the senior management working in the project to plan the project properly to mitigate the negative affects of project delay. The use of proper project management practices must be deployed in the project-based organizations. The workforce must be trained and educated about their roles and responsibilities. The organization should adopt better and efficient approaches to manage the project so that they can be aware of all the roles and responsibilities that are expected from them.

In addition, one of the components of the project that is the project governance insignificantly moderates the project planning and project awareness relationship. This concludes the fact that when studying the projects in the context of Pakistan governance does not play a significant role because the working behavior of the project team and project managers is not influenced by the supervision by the senior management or the senior management does not govern the project in a proper way in order to influence the working style of the employee, lack of interest by the governing body may be the cause of this trend. Project when initiated must be properly supervised and taken care of so that the governance of a project can play a significant role in the planning and increasing the awareness level of the project team and workforce.

Planning is considered to be the most vital part of a project, so the individuals involved in planning must be competent enough to properly plan for all the deliverables of the project and lead the project towards a timely completion.

5.2   Limitation and Future Direction

Even though this study used the opportunity to examine the impact of project planning on project delay, certain limitations exits due to which the results should be interpreted. Regardless of the contribution the limitation must be noted. This study can only be run in projectized organization due to the fact that most of the projects are taken in projectized organization under the constraints of time, cost. The work at traditional organizations is routine work unlike the projects that are meant to be completed on time with limited resources. The team working in a project may be freshly hired and dont have the dedication towards completing the project on time. Due to lack of time and resources the focus was on the company based in Islamabad and Rawalpindi. The sample was taken from this region to represent the whole population under study. One more limitation exists in the fact that companies operating in Pakistan are not aware of the project importance like other countries and makes employee less aware of the importance of planning who are acting as respondents to this study.

For future studies the scope of the research can include the organization form all over Pakistan to get a wider view of the situation of the projects. The studies should focus now on exploratory studies to find the causes of delays and how much they effect the projects in the context of Pakistan. Project planning is one thing the focus should be now on how project planning plays its role to generate more factors that can result in project delay. All of the studies have on the delay show that there are different causes depending on the context of the project. The causes and the group that are causing the delay are specific with respect to country, location and specific to the kind of project as well. In the domain of project, no cause can be taken for granted on the basis that they are most or least effective. The caused must be taken care of so that it cannot cause any delay at any moment in the project (Aziz & Abdel-Hakam, 2016).

Stress must be paid to develop and follow the project cycle having a vital part of planning so that all the project owners must plan and implement the plans to get a successful project. (Ahsan & Gunawan, 2010). The problems of projects

delays differ from one area to another due to changing factors and their affects as experienced by the project and the project team. (Mpofu, Ochieng, Pretorius & Moobela). The research done concludes that the delay happening in the project are specific to country and are time related as well. So, they should be evaluated under the context of the country (Mpofu, Ochieng, Pretorius & Moobela).

Pakistan like other countries is burning up its resources in order to develop an infrastructure and initiating development projects whether they are construction project, IT projects etc. so, for this purpose the ways of caring out projects in Pakistan must also be improved and it should be done in such a way by utilizing the research studies available and by following proper and established studies in the domain of project management. Pakistan like other countries face problems while caring out the projects. But the dilemma is that we as the project owners do not struggle for the project to be carried out properly. No interest is taken in the projects or the training and guidance of the employee caring out them. That is the reason why projects fail so much in Pakistan.

So, what should be done is that proper supervision must be done by the senior management or stake holders of the project, proper resources should be provided and proper methods should be used in doing so. The professionals in the industry must seek guidance from the available literature and pour out the errors in undertaking the project. So, that all the projects under taken can be completed successfully and within its constraints.

While in the execution of projects challenges that are faced are delays and project disruptions. Potential risks are caused by the disruptions as well as the delays which the current topics are looking into while finding ways to handle the delays from different sources which can be social legal, technical, financial, or managerial (Kikwasi). This puts focus how much focus should be paid in conducting the studies on project planning and delay that are caused by it. So, it is suggested that more studies should be conducted in the project domain in carried out by different organization in Pakistan.

5.3   Conclusion

This research was intended to study the impact of project planning on project delay with the mediating role of project awareness and the moderating role of project governance. It is to be concluded that moderation of project governance is not significant. It does not moderate the relationship of project planning and project awareness in the context of the organizations working in Pakistan.

Also, it was found out that project awareness mediates the relationship of project planning and project delay. Moreover, it was found that the project planning decreases project delay.

This research highlights the importance of project planning and how it will affect the project health in the context of Pakistan. The project awareness is the bases of knowing the roles and responsibilities of an employee or a project manager and how it affects the project delay and planning relationship. The organizations and project owners must devise ways to ensure project successful delivery, making project planning a vital part of the project while and ensuring proper planning that fulfills the requirements of the project. The set plans will help the individuals to know what is expected from them. This way they will be able to execute the project successfully and on time.

The organization need to focus their efforts in the planning the project properly and to train their employee so that they may know what is to be done and when it is to be done. Most of the organization not following properly the planning procedures may fail the project or at the very least push the project in the category of troubled projects. The context is very important in the sense that with changing context we have different levels of employee dedication to their roles and responsibilities and the trend to manage the project in the right way.

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Appendices

Questionnaire

Dear respondent,

I am student of MS Project Management at Capital University of Science and Technology, Islamabad and this research part of fulfilment of my degree program. It is hereby conducted on the **Impact of Project Planning on Project Delay**. For the result analysis a questionnaire is being made for which your participation will be a favour. Your participation is totally voluntary and depends on your choice. Your Identity will be kept confidential and this questionnaire will not be used as any reference on any stage/platform. If you are interested in knowing the results of this research being conducted, you may contact me on "seemak.tanveer@gmail.com". Your cooperation in this regard is highly appreciated.

Please complete the following questionnaire with specific regard to the above enquiry, by encircling the appropriate option.

Demographics	
Gender:	1- Male 2- Female
Education:	1. Matric, 2. Intermediate 3. Graduation 4. Masters 5. PhD
Age Group:	1. (20-30) 2. (31-40) 3. (41-50) 4. (51-60) 5. (61-above)
Job Sector:	1. Public 2. Private
Experience (Years):	1. (1-5) 2. (6-10) 3. (11-15) 4. (16- 20) 5. (more than 20 years)

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

Project Awareness : (Encircle an option, Strongly Disagree = 1, Disagree= 2, Neutral = 3, Agree = 4, Strongly Agree = 5)

1	Clear understanding of technical objectives.	1	2	3	4	5
2	Show current technical knowledge.	1	2	3	4	5
3	Aware of all project details and work.	1	2	3	4	5
4	Devote sufficient time to working on the project Actions.	1	2	3	4	5

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

1	In my organization decisions are made in the best interest of the shareholders and owners of the organization and their Return on Investment (RoI).	1	2	3	4	5	6	7
2	In my organization the remuneration system includes stock-options for employees and similar incentives that foster shareholder RoI thinking.	1	2	3	4	5	6	7
3	In my organization prevails an image that profitability determines the legitimacy of actions (including projects).	1	2	3	4	5	6	7
4	In my organization I am sometimes asked to sacrifice stakeholder satisfaction for the achievement of financial objectives.	1	2	3	4	5	6	7

5	In my organization the long term objective is to maximize value for the owners of the organization.	1	2	3	4	5	6	7
6	The management philosophy in my organization favors a strong emphasis on always getting personnel to follow the formally laid down procedures.	1	2	3	4	5	6	7
7	The management philosophy in my organization favors tight formal control of most operations by means of sophisticated control and information systems.	1	2	3	4	5	6	7
8	The management philosophy in my organization favors a strong emphasis on getting personnel to adhere closely to formal job descriptions.	1	2	3	4	5	6	7
9	The management philosophy in my organization favors support institutions (like a PMO) should ensure compliance with the organization's project management methodology.	1	2	3	4	5	6	7
10	The management philosophy in my organization favors prioritization of methodology compliance over people's own experiences in doing their work.	1	2	3	4	5	6	7

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

1	The project experienced significant delays.	1	2	3	4	5	6	7
2	All phases of the project were completed on time (R).	1	2	3	4	5	6	7
3	Unexpected interruptions were common.	1	2	3	4	5	6	7
4	In the project, we often had to wait for others.	1	2	3	4	5	6	7