

**CAPITAL UNIVERSITY OF SCIENCE AND  
TECHNOLOGY, ISLAMABAD**



**Impact of Project Management Practices on  
Performance of Small and Medium Enterprises  
with the Mediating Role of Knowledge  
Management and Moderating Role of Business  
Environment**

by

**Khawar Zafar**

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

in the

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

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*First of all, I thank ALLAH Almighty who is the most merciful and beneficent. ALLAH created us and showed us a correct pathway. ALLAH always secretes sins and protects us from social troubles. I also dedicate my study to my Father and my Mother, my dearly loved parents.*



## CERTIFICATE OF APPROVAL

**Impact of Project Management Practices on Performance  
of Small and Medium Enterprises with the Mediating Role  
of Knowledge Management and Moderating Role of  
Business Environment**

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## *Abstract*

This study focuses on the relationship between Project Management Practices and Performance of Small and Medium Enterprises with mediating role of Knowledge Management and moderating role of Business Environment. The specific context of this study is SMEs of sports sector of Pakistan. Close ended questionnaires were used to get data from 300 employees and managers of SMEs. In Pakistan SMEs pay little attention to project management practices including project risk management, project cost management, project scope management and project communication management due to which business environment is not transparent, predictable and easy to work. Lack of knowledge management in firms is also another reason which causes failure of projects. Managers/employees in SMEs are not aware with practices of project management and they also dont collect, share, transfer and utilize knowledge properly. The overall objective of the study is to develop and test anticipated model to find out the relationship between PMP, performance of SMEs and Business Environment. Moreover, mediating role of Knowledge Management is also established. Results indicate positive impact of PMP on performance of SMEs Success. In addition, results confirm the moderation of Business Environment. Results of this study show that there is no mediation between Project Management Practices and Performance of SMEs.

**Keywords: Project Management Practices, Performance of SMEs, Knowledge Management, Business Environment.**



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# Abbreviations

<b>PMP</b>	Project Management Practices
<b>SMEs</b>	Small and Medium Enterprises
<b>KM</b>	Knowledge Management
<b>BE</b>	Business Environment
<b>GDP</b>	Gross Domestic Product
<b>RBV</b>	Resource Based View Theory
<b>PM</b>	Project Management
<b>VRIO</b>	Valuable, Rare, Imitable, Organizational support

# Chapter 1

## Introduction

### 1.1 Background

Project Management is a set of well-established tools, skills and knowledge to manage resources, cost, time and scope. Project management can be defined as a approach through which existing resources are utilized efficiently and professionally by restructuring management and adapting special management tools and techniques to achieve better control. Project Management Practices (PMP) including project scope management, cost management, communication management and risk management are usually designed to manage vast projects of heavy industries and companies. Large scale companies used PMP to manage projects and they get good output in less input within limit of time and cost (Conforto, E. C., Salum, & De Almeida, L. F. M. 2014).

Small and Medium Enterprises (SMEs) are generally considered those firms who have employee's range between 50-250 or whose investment is less than Rs 2.50 million. Small and Medium Enterprises play a fundamental role in the economy of whole world. Small and Medium Enterprises are known as pillar of any country and provide employment (Akhtar, Ismail, Hussain, & Rehman, 2015). Although from SMEs in a under developed country they can use all economic resources, as without SMEs they can't. Small and Medium Enterprises gain a good substantial

advantage in exporting. Small and Medium Enterprises can reach large international markets from where they can earn revenue, learn new skills and earn good reputation for their owners, workers and their families. However, SMEs total direct exports are only 3% as compared to large firms of 14% (Atkin & Jinhage, 2017).

As Pakistan is developing country so SMEs are contributing important role in the development of economy of Pakistan. It gives direction for innovations and provide earnings to government. High level companies used project management practices to achieve success while SMEs did not use these practices and they did not reach on peak level (Shahbaz, Javed, Dar, & Sattar, 2014). High level firms are trying to achieve new market opportunities and they leave only a little gap for SMEs. Small and Medium Enterprises are just not increasing GDP of Pakistan; however, it also helps to reduce unemployment. In Pakistan, employment role of labor level is 90% in SMEs. Small and Medium Enterprises reduces unemployment by creating job opportunities.

One of the major sectors of SMEs is sports sector. Pakistan sports sector is famous in worldwide and has good reputation from many decades. As they choose high quality and prime raw material, they have good and expert designer and manufacturing teams. Famous goods of Pakistan sports industry are football, hockey, exercise balls, cricket bats, baseballs, shuttle cock, nets and volleyball's etc. Main importer countries are UK, USA, France, Netherland, Germany, Hong Kong, and Italy etc. They import sports goods manufactured by the Pakistani SMEs for different events and SMEs have to prepare all these items as a project. Pakistan earns good revenue from export of sports goods. It is reported that Pakistan earn 7.83% through export of sports goods from 2017-2018 which is \$332.516 million (Ullah, 2018).

Pakistan is an emergent country so SMEs have massive opportunities to increase the growing economy of Pakistan. Economy of Pakistan and GDP can raise if SMEs perform better. From few years government of Pakistan is trying to increasing the rate of SMEs (Khan & Khaliq, 2014). But instead of increasing,



rate of SME is declining from expected results. In Small and Medium Enterprises, reason of low performance is lack of Project Management Practices (PMP) in firms (Geoghegan & Dulewicz, 2012). However, project management practices are equally important for SMEs that are linked with supplying sports goods for different events. While SMEs which have setup on small scale and who don't use PMP, they consume more time, cost, and resources to achieve ordinary goals.

This study will explore the usage of PM tools, techniques and software that are being used in SMEs for getting higher performance. Along with project management practices another important aspect that may lead SMEs to success is use of knowledge management (Ahmad, Lodhi, Zaman, & Naseem, 2017). Knowledge management has generated new avenues for the researchers and has also increased their interest in exploring the relevance of knowledge and its management (Heisig, Suraj, Kianto, Kemboi, Arrau, & Easa, 2016). Organizations that manage knowledge effectively can implement project management practices successfully (Lj, Petrovic, & Mihic, 2015). Knowledge management is considered to have increased the visibility and impact in the literature (Akhavan, Ebrahim, Fetrati, & Pezeshkan, 2016). Studies confirmed that it improves organizational performance (Ahmad, Lodhi, Zaman, & Naseem, 2017).

Knowledge creation, knowledge sharing, knowledge matrices, knowledge mapping, knowledge storing and distributions are termed as knowledge management. These terms of knowledge management have potential contributing role in the success of organizations, developing the organizational capacities and also paving the ways for gaining competitive advantage (Shannak, 2012). Considering the importance of knowledge management, it is considered to be one of the key success factors for an organization due to its strong positive impact on performance (Acar, MerveTarim, Zaim, Zaim, & Delen, 2017).

Despite the usage of project management practices, and considering the importance of knowledge management, importance of business environment cannot be ignored. Several researchers have analyzed business environment in connection with different fundamentals of firm performance. Business environment indirectly influence the performance of firm (Roudaut, 2016). An effectiveness differentiation

among formal and informal firms is mainly due to unattractive business environment. Numerous researchers highlighted the need to work on the mechanisms by which resource based view theory influence the resources required to improve SMEs. A developing country like Pakistan SMEs growth rate in exports should be at least 35% while in Pakistan it is below than 24% and still decreasing from few years (Mahesar, 2015). This is generally not good for economy of Pakistan. Thus, considering the declining position of export-based project-oriented SMEs, this study will be conducted to find the impact of project management practices on performance of SMEs with mediating role of knowledge management and moderating role of business environment.

## 1.2 Gap Analysis

Small and Medium Enterprises importance in economic growth and employment cannot be ignored (Ahmad M. M., 2013). Due to poor performance and low productivity, SMEs are still losing their competitive advantage worldwide (Tehseen, Sajilan, Ramayah, & Gadar, 2015). It is found that PMP are rarely used by SMEs. However, SMEs performance can be enhanced by using PMP (Marcelino-Sadaba, 2014), therefore, the role and importance of PMP cannot be denied. Project risk management, project cost management, project scope management, and project communication management are important practices of project management. The above-mentioned practices act as a major source for the SMEs. All these project management practices can be adopted if the firm properly manages knowledge about these practices which will lead to success.

Project management practices is considered as independent variable and SMEs performance is considered as dependent variable respectively by using knowledge management as a mediator because in previous research it is stated that more aspects of PMP should have to be taken with mediator place for inspection of validity of relationships (Bishop, 2018). There is a linkage between knowledge management and performance of firms (Heisig, Suraj, Kianto, Kemboi, Arrau, & Easa, 2016). Therefore, it is necessary to identify the mediating role of knowledge

management between project management practices and performance of SMEs. Another factor which should not be ignored is business environment (Harc & Sertic, 2018). Therefore, this study will fill the gap in the body of knowledge by adding mediating effect of knowledge management and moderating effect of business environment on the relationship between project management practices and performance of SMEs. There is scarcity of research in these areas as the only study that link between PMP and SMEs performance is tested by (Turner & Ledwith, 2008). Therefore, this study will find impact of PMP on performance of SMEs with mediating role of knowledge management and moderating role of business environment.

### 1.3 Problem Statement

Government develops homogeneous policies while SMEs are heterogeneous in nature, and only one solution cannot support all types of SMEs. It is very difficult and risky to develop appropriate policies because of lack of knowledge. All SMEs do not attain high success. Research has found that two third businesses are survive for less than 2 years, 44% businesses survive up to 4 years and only about 4% survives for more than 20 years, the main reason behind poor survival is poor performance due to the lack of strategies and practices (Sahoo & Yadav, 2017). These poor conditions required that issue should be research, so proper measures may be taken to improve the poor performance of SMEs. Project management practices have permeated in the purview of managing and organizing of projects. However, a number of aspects linked to PMP are still not explored. As study on the relationship between PMP and SMEs performance is a grey area, also mediating role of knowledge management between PMP and SMEs performance is completely untouched. Moreover, the moderating influence of business environment in between PMP and SMEs performance is still unexplored. To provide evidence in this domain (particularly PMP, Business environment, KM and SMEs performance) is the necessity of hour since this will provide the credible grounds for the projects to deal with knowledge so as to drive them in a better way.

## 1.4 Research Questions

The research questions that have been used as the basis for the research are mentioned below:

1. Do project management practices impact performance of SMEs?
2. Do project management practices impact knowledge management?
3. Does knowledge management impact performance of SMEs?
4. Does knowledge management mediate the relationship between project management practices and performance of SMEs?
5. Does business environment moderate the relationship between project management practices and performance of SMEs?

## 1.5 Objectives of the Study

The aim of this study is to find the impact of project management practices on performance of SMEs. Additionally, moderator business environment and mediator knowledge management are taken for the study of effect of the model.

The Objectives of the study are:

1. To find the impact of project management practices on performance of SMEs.
2. To find the impact of project management practices on knowledge management.
3. To find the impact of knowledge management on performance of SMEs.
4. To find the mediating impact of knowledge management on the relationship between project management practices and performance of SMEs.
5. To find the moderating impact of business environment on the relationship between project management practices and performance of SMEs.

## **1.6 Significance of Study**

The present study is proposing several theoretical and practical significant implications. Study is aimed to analyze and provide the helping hand to know the effect of project management practices on the performance, employment, GDP and growth rate of SMEs. This research will serve as a resource for researchers, writers or readers who might use it as future studies. It would be helpful to provide significant contributions for future research noses. The study has another significance to provide the effect of project management practices on SMEs to enhance performance with mediating role of knowledge management and moderating role of business environment.

# Chapter 2

## Literature Review

This part shows the literature on Small and Medium Enterprises (SMEs) in generally. The chapter also discusses why project management practices have taken as an independent variable, why knowledge management is taken as a mediating variable and why the business environment is taken as a moderating variable. Further, the literature on the performance of SMEs will be discussed in detail why hypothesis H1, H2, H3, H4 and H5 are taken and how they are acceptable on the base of literature. Finally, the theory has been used to support the framework of the study that has been discussed along with the theoretical contribution of the study.

### 2.1 Performance of SMEs

Small and Medium Enterprises are essential sources of increasing in job growth ratio, increase GDP rate and exports of any nation (Ayyagari, 2014). In addition, by looking at the world bank endeavor survey, SMEs in rising economies realize severe economic constraints Asad, Alekam, and Sharif (2016), which in turn can have a negative effect on productivity, survival and abundance. Quartey, EboTurkson, Y.Abor, and MalikIddrisu (2017) suggested that firm size is a major factor of access to finance worldwide, which in turn may affect SMEs performance. To achieve strategic goals of project firm performance should be increased in perspective of

its growth rate in financial and employment rate. This suggests SMEs become to be extremely competitive in a developing business sector when they provide importance to innovative activities that make their notoriety in the business environment. In spite of huge commitment of SMEs to the financial development of Pakistan, over 90% youngsters in greatest urban areas don't trust that they have enough jobs for their abilities. The studies reveal that, SMEs not only make effects, it additionally improves the salary of individuals of the nation by making further employment opportunities (Zafar & Mustafa, 2017). Despite of these factors, there are other perspectives of SMEs features that may have an impact on legal status and ownership type in performance of SMEs.

Notwithstanding, it is ending up progressively prominent to determine an organization's development and its complex structure by the quantity of its representatives. Consolidating the recently referenced viewpoint with the attributes of SMEs, which scarcely have any formalized structures, for example, technique, forms, and so on leaves this comprehension to be experimentally explored specifically. Definitively, it may be said that there have been no ways to deal with date that are particularly created for SMEs and are generally acknowledged neither the methodology (Daud & Yusoff, 2014). Besides, it should be expressed that the general qualities of SMEs, for example, proprietor centering, high adaptability, quick fit to advertise changes, less procedure formalization, and focusing on day by day business lastly learning by doing process were taken into consideration. The attributes of a SME decide the second issue zone. In the event that no examinations and checks are made before the start of the execution procedure, the shortcomings, which begin from the particular SME attributes as respects the prerequisites of an execution estimation framework are seen amid usage at the most recent (Mahesar, 2015). This is a basic point if the usage falls flat toward the finish of the venture, this has a lot higher effect on SMEs than on substantial organizations due to the intense need and commitment of assets for the entire execution process.

It tends to be demonstrated that organizations taking part in vertical systems are bound to participate in asset pooling which at last enhances the innovations of developments along the value chain (Feng-JyhLin & Lin, 2016). Namara, Murro,

and O'Donohoe (2017) supported these results by examining the data from SMEs crosswise over six European nations despite the fact those not featuring nation explicit contrasts. They discovered proof that vertical systems enhance the likelihood of a SME to acquaint an item development and with produce turnover from advancement. In any case, they don't concentrate on nation contrasts in their examination in spite of the fact that their example comprises of SMEs from various nations. Besides, Australian SMEs are collaboration exercises as well as the quantity of vertical system ties and the recurrence of association affect the likelihood of presenting item advancement. Recognizing participation inside a similar nation and with remote nations. Herstad and Ebersberger (2015) reveal that particular international firms are important or the probability of a firm to introduce a product innovation in Austria, Bulgaria, and Denmark while domestic cooperation is of importance in Norway. However, they did not focus on SMEs in their analysis.

SMEs are assuming huge job in the financial advancement of Pakistan (Zafar & Mustafa, 2017). SMEs assume an imperative job in adding to the economies and are considered as the foundation of monetary development in creating just as created countries. Like other creating nations, Pakistan's economy is likewise to a great extent dependent on SMEs (Khalique, 2014). SMEs are fundamental to the economy of each nation, especially creating economies. SMEs are deliberately vital in many creating nations, especially those situated in the Asian locale. SMEs are contributing fundamentally in Pakistan's economy since its freedom (Hussain, Farooq, & Akhtar, 2015). In the context of SME, the study of Pakistan is in the initial stage. SME health and performance are at a dangerous stage. The shortage of intellectual capital and infrastructures, political instability and power crisis are a common and serious threat to the survival and stability of SMEs of Pakistan. Due to shortage of skills, SMEs cannot compete at national and international levels. Besides, it should be expressed that the general qualities of SMEs, for example, proprietor centering, high adaptability, quick fit to advertise changes, less procedure formalization, and focusing on day by day business lastly learning by doing process were taken into consideration. The attributes of a SME decide the second issue zone. In the event that no examinations and checks are made



before the start of the execution procedure. SMEs have many challenges to survive in competitive environment (Ombongi & Long, 2018).

## 2.2 Project Management Practices

Projects are any temporary endeavors which have specific time, cost, and scope. While project management is the practice of risk, cost, scope, and communication of a team to achieve specific objectives of firm, to attain all project objectives within the given limitations is primary challenge for project management. The project management methods currently refer to the most appropriate means known by the project management sector to attain intention or aim (Golini, Kalchschmidt, & PaoloLandoni, 2015). More effective in delivering a specific result when applying the process through a technique, method or process and application that executes any project method or process.

Despite, it is ending up progressively prevalent to indicate an organizations development and its following ongoing exploration results, open advancement may likewise sway the execution of SMEs. An ongoing vast scale quantitative examination on European SMEs shows that SMEs take part in constraint crossing project activities going past value-based connections in between organizational systems that enhance their development execution while doing as such (Mir & H.Pinnington, 2014). SMEs that connect with a wide range of outside accomplices can accomplish a higher development execution than those that stayed deterred and divider their advancement exercises. In any case, it makes a difference with whom SMEs are interfacing in their project activities. Studies demonstrated that the blend of various advancement sources as opposed to the absolute number of sources characterize how SMEs lock in outer thought sourcing and, advantage from it.

A few SMEs participate in creative sourcing of research and development joint efforts to gain admittance to new technical knowledge. Others work intimately with accomplices along their value chain and join contribution from providers and clients. Ongoing investigation shows that there are SMEs that take part in eco-framework wide open development exercises and include correlative accomplices

in expansion to research accomplices and production network accomplices. Generally, speaking corresponding system accomplices and built up co-advancement connections are an essential outside hotspot for non-monetary inbound exercises and furthermore outbound exercises (Badewi, 2016). They offer well-functioning collaboration channels that are significant to consolidate and change contributions from various learning spaces. Similarly, they offer access to corresponding resources that are basic to make an incentive from a thought. Some outside accomplices may really speak to a hazard. For instance, the connection with colleges is to some degree dangerous for SMEs. On the off chance that SMEs seek in exceedingly pre-commercial areas, they may get secured and may battle with transforming thoughts into good opinion. A vast extent of productions focusses on a methodology or a procedure, which has been actualized in a specific number of organizations generally with the direction of the relating creator. Small and Medium Enterprises in the assembling division make a noteworthy commitment to financial development, yet a large portion of the investigation into advancement the executives in the assembling part has concentrated on substantial associations (Petro & Gardiner, 2015). This study described in how much extent project management practices are useful for SMEs.

Mostly Large firms used all the tools and techniques of project management, so that's why they earn good output with few inputs. Mostly smaller companies don't use project management tools and techniques to achieve organizational goals (Sdaba, Ezcurdia, Lazcano, & Villanueva, 2014). The significance of projects in SMEs cannot be ignored, largest corporations not only grasp, but perhaps even more for SMEs. Project Management Practices like cost management, scope management, risk management and communication management always influence performance of Small and Medium Enterprises. Good management principles should be followed to successfully manage projects of SMEs to prevent failure and to assist in the implementation of new projects (Dasari, Jigeesh, & Prabhukumar, 2015). Therefore, there is no harm in saying that project management practices are necessary for achievement of high performance and sustaining reputation in international market.

## 2.3 Knowledge Management

Knowledge management is defined as an orderly progressing procedure of making, applying, spreading, reestablishing, and refreshing the knowledge for getting firm goals (Pillania, 2018). In order to the abroad this way recommends a hard affix to firm goals, and it includes the management of knowledge that is helpful for some reason and which makes an encouragement for the organization. Knowledge management is obviously a key way to deal with taking care of current issues, for example, strength and the need to enhance, which is looked in organizations today (Wickramasinghe, 2014). Knowledge management ought to beside lines make/-give the accurate apparatus, persons, knowledge, structure, society, and, soon to improve knowledge it must understand the value in addition to usage of the latest in order to make SMEs performance. Usually concurred, information can be part into two sorts express and implicit. Unsaid learning is held by specialists, having point explicit just as intellectual aptitudes that contain examples of thought or ideas, convictions, foundation, and mental models. Express information can be enunciated in an antiquity of some kind outside a person and be exchanged for example to non-specialists. Unequivocal learning is levelheaded and incorporates hypothetical methodologies, critical thinking, manuals, and databases. For the most part, SMEs assume a critical job in supporting the country's economy (Meihami & Meihami, 2014).

In Malaysia, SMEs have not developed their reputation still. However, it is fundamental for businessmen to check for and move towards better methods to finish up dynamically productive. In the present circumstances, knowledge has been viewed as a significant vital centralized resource. By knowing importance of knowledge, representatives are encouraged to develop their capacities to management knowledge which will move them to finish up progressively engaged and imaginative organizations. Recently research is open in the data management composing investigating the technique of knowledge main function as a composite grow in any case smaller examine has been done to take a gander at the independent effects of the individual components of the data the officials system. While, insignificant definite evidence has been found to choose the knowledge of data wide practices

with respect to making countries and free organization (Nonaka & Toyama, 2015). Study is expected to fill the obvious gap by looking into firms between PMP methodology limits and knowledge with respect to Malaysian SMEs.

Knowledge include procedure abilities as it is conceptualized as four-dimensional construct: knowledge procurement, knowledge change, knowledge application, and knowledge insurance while the project management was isolated into three measurements to be specific scope, on time and within specified cost. Study explained that the four knowledge management procedure and capacities are essential predecessors of project management, which have thusly a positive association with triple constraints including time, cost and scope of SMEs. Results of study will give experiences to business people and help them to distinguish and create viable systems towards upgrading their general management system (Chang, 2015).

The exchange of information from inferred to express or unequivocal to implicit can be seen as a persistent knowledge process turning into the purported knowledge winding. It empowers building and passing on information needing great knowledge management to upgrade the procedure, at long last utilizing corporate execution. So should amass this in sequence as well as create it punctually available for the ideal persons at the perfect time and, it ought to consistently review, apply, refine, and leave knowledge management associated with actual long and, quick essentials. Serrat (2017) stated that knowledge of the project is express and orderly management of rules empowering the fundamental individual and total knowledge management to be distinguished, made, put away, shared, and used for advantage. Its reasonable expression is combined data the board and authoritative knowledge management.

Knowledge management is a careful method for obtaining the correct information to the correct people at the perfect time and encouraging people to share and applying data that attempts to enhance organizational performance (Kang, 2017). Knowledge management enables an organization to pick up knowledge, and comprehension from its own understanding. Knowledge management the slat activity that the association around, obtaining, putting away, and utilizing information

for such things as critical thinking, dynamic knowledge, vital collection, and fundamental knowledge management. So knowledge management is basically a very useful approach to meet high project goals in lowest cost within time and scope.

## 2.4 Business Environment

The growth of the SME sector is intimately associated with transparency, stability, and predictability of the business environment from a state level. Performance, daily business's operations, and SMEs are particularly influenced by the business environment. Mostly effect of the business environment on the size of the SME sector, prelude findings from a cross-country assessment shows that an easy business environment, supported by economic and budgetary policies could sustain the growth of SMEs (Senen & Iwan, 2016). SMEs give in this way, to civilizing the living wage circumstances of households with petite incomes and through fewer chances in conditions of employment opportunities. SMEs play a vital role in creating employment and sinking scarcity (Prajogo, D. I. 2016).

Organizations access to monetary resources and the prospect to acquire financial possessions determines the value of the business environment in an important way. Traditional managerial models typically assume that managers, instead of maximizing profit, maximize a simple objective utility function (this may include salary, perks, security, power, prestige) subject to an arbitrarily given profit constraint (profit satisfying). March of the carnegie school emphasized on explaining how decisions are taken within the firm, and goes well beyond lower economics. Much of this depended on work concerning behavior in situations of uncertainty, which argued that people possess limited cognitive ability and so can activities only bounded rationality when making decisions in complex, uncertain situations. Recently, further questioned the rigid distinction between firms and markets based on the increasing prominence of common based equal production systems such as open source software, wikipedia, creative Commons, etc. Many factors influence the firm in comprehensive and integrated businesses (Savrul, Incekara, & Sener, 2014). This happens due to continuity of uncertainty. For instance, a soulful and

safety regulation is an external factor that influences the internal environment of business operations.

Changes in good business environment should be reflected into the business officials anyway their power and variability are hard to expect (Aleksandr, Jaroslav, Ludmila, & Pavla, 2016). Nowadays, we have entered knowledge based economy where estimation of human resource and data in the affiliations have turned out to could without much of a stretch contrast with the standard of money related influence such capital, land and work. Knowledge management is the control of getting data based capacities and securing them to help the affiliation with everything taken into account. Business environment is an effective dealt with undertaking to use knowledge in business inside a relationship to change its ability to store and use it. It is critical instrument how to improve business performance of SMEs and execution of the whole affiliation. Building the estimation of knowledge the committee is a key to accomplishment in the testing condition (Ahmad, Lodhi, Zaman, & Naseem, 2017). Knowledge the board may seem, by all accounts, to be old ground, anyway moving economies like Slovakia it is still now fervently discussed issue. Studies shows that business environment situation in Pakistan is critical.

The business environment in which SMEs run has particular, unique relevance for their abilities to form jobs, and grant employment opportunities (Harc & Sertic, 2018). Transparent business environment always welcome multinational companies which provide employment and increase GDP. So, it is essential to form a constant and expected business environment to sustain SME sector. A lot of PMP frameworks are accessible, and previous studies showed that project management contributes in to improvement of business environment. Small and Medium Enterprises access to management principles and the aspect to acquire financial possessions determines the value of the business environment in an important way. Therefore, it is necessary to take several steps which lead to developing the business environment, and form the premises to take action against the project process because it influences directly SMEs development.

## 2.5 Project Management Practices and Performance of SMEs

SMEs performance is calculated in two raises: project performance and business performance. In the case of project performance, project success generally has been considered as project accomplishment on a given time frame, expenditure, and work quality. As projects are completed by teams, one of the key calculations of success is how much the work team was satisfied in working together (Doolen, Hacker, & Aken, 2014). According to research, project performance may be dividing and considering into two parts one is project efficiency and other is project effectiveness. As Project efficiency is meeting time and budget targets. Efficiency is highly based on meeting scheduled targets and on meeting budget goals. Effectiveness in contrast to this, is dependent on satisfaction measures (Dvir, Sadeh, & Malach-Pines, 2016). Project effectiveness is including meeting customer expectations and team satisfaction. Organizational performance adopted from Nahm, Vonderembse and Koufteros (2014) measured an organizations performance by sales growth, return on investment, market-share gain, and overall competitive position. Different authors have looked at the effect on the firms in general. Dvir, Sadeh, and Malach-Pines (2016) gave an account of the effect of one specific sort of project on generally speaking business performance. Lapper and Sprang (2014) have additionally built up a model to decide if interest in the project management gives a huge return. Their exploration depended on 251 projects from a German life coverage organization and demonstrated a reasonable connection between the expenses related to project management and resultant advantages.

Research by Marcelino-Sadaba (2014) additionally attempted to cover the arrival on uncertainty in the project generally. Study was affiliated by a couple of their 65 member association effectively gathering information on the arrival from their interest in the project management capacity. Exploration was in any case ready to exhibit that the greater part of their contextual analysis associations got substantial benefit from the usage of project management.

SMEs give the setting in which the topic of the effect of the project management on SMEs performance will be analyzed. An impressive extent of the project management looks at main advantage on huge projects and this is reasonable. A lot of money is getting spend on projects but instead of increasing improvement in projects performance it is declining. Notwithstanding, a thoroughly study on huge projects can prompt overestimation of both their effect on the economy and their generality. Big activities might be increasingly sensational however, they remain the minority of projects running contrasted with those embraced by smaller organizations.

Dvir (2016) point out that SME has reached such a stage where the process of growing the organizations performance needs proper management focus, which is not only acceptable to the practice of project management, knowledgeable, committed, organized and cognitive project teams. SMEs organizational performance strategies, formation, process and project management practices interact with each other that is needed in really words (Filippov & Mooi, 2015). Most ideas with a focus on a business perspective and goal on good results and organizational performance of the project is needed specifically in SMEs to enhance their performance (Turner & Ledwith, 2008). For more good ways to increase SMEs strategies and SMEs performance, there are a number of more effective ways to make organization strategies available for project manager's growing interest in adopting project management practices. So, this hypothesis is designed to test the impact of project management practices related to SMEs performance.

**H<sub>a1</sub>: There is positive impact of project management practices on performance of SMEs.**

### **2.5.1 Project Scope Management and Performance of SMEs**

To managing as well as defining the scope of project it impacts the projects in general attainment (PMI, 2004). In the procedure area of controlling PMI contends that project scope is concerned about affecting the variables, making project scope



changes and the impact of these alternations. Moreover, the PMI project management is liable for in charge of guaranteeing that anticipated alterations are dealing through the proper change control process. An essential capacity of scope management, by the PMI, is extension the executives form duty to oversee valid project changes, not identified with organizational change the executives, and incorporating the progressions with other controlling ways. Small and Medium Enterprises should initially concentrate on project scope that what they will do. The scope gives guidance to project managers that what are truly prerequisites of clients. The PMI states that abandoned changes are often named as scope creep. Scope creep is the bad side-effect of a severely manage project scope, often prompting real troubles in activities of a project or being a purpose behind unsuccessful project bringing about lost clients and decreased profits for SMEs (Dekkers & Forselius, 2015). Therefore, project scope management is considered to be an important factor which influences the performance of SMEs.

### **2.5.2 Project Cost Management and Performance of SMEs**

To understand the efficiency and performance of SMEs there should be a focus on profitability and cost of the firm (Drury, 2017). According to Drury (2017), Successful organizations pay a strict focus on financial matters so SMEs should manage its cost resources by using professional techniques. Performance of SMEs is increased when its profitability gets increasing and it is also an important part of project management (Jean, Boiral, & JoseRoy, 2015). SMEs performance gets an increase when there is transparency, the cost is in control and there is a decrease in risk.

### **2.5.3 Project Communication Management and Performance of SMEs**

Communication management is an important practice in project management and it always leads projects to success. Because of the lack of communication among participants of organizations, sixty percent of projects become fail (PMI, 2004).

Due to the lack of communication between participants of the project, mostly projects failed to meet its goal and it leads towards overrun of cost and late delivery of the project. Therefore, project communication management is a key approach to get the project's goal leading to improved organizational performance through appropriate project achievement inside the resources (PMI, 2004). Heerkens and Weerd (2017) mentioned that communication and documentation are accepted arrangement while they join the project jointly as of begin to end and adds that information sharing makes required information accessible to project stakeholders in a well-timed method. Steady and efficient information sharing among all the stakeholders of the projects is considered as the imperative factors to make sure the positively completion of the project. As knowledge is labeled as power, likewise information sharing during project between the participants of the project empowers everyone and thus boost their understanding and capacity to do (Kerzner, 2017). When the project completes, a final report is presented to all the stakeholders to make sure their satisfaction and future development. Emphasize that project achievement hugely effect on efficient project communication management, moreover, positive communication between different sections of projects teams increases the success rate of the project.

#### **2.5.4 Project Risk Management and Performance of SMEs**

Small and Medium Enterprises are significantly responsive to business uncertainties and lie in the area of competition so uncertainties remained in every step (Falkner & Hiebl, 2015). They mentioned that with the owner's judgment of threats and opportunities pertaining to the enterprise risk management function usually reside in SMEs. Rai, Agrawal, and Khaliq (2017) mentioned that for the customer satisfaction and successful finishing point of project and improved monetary performance of the firm, effective risk management should ensure properly. It is difficult for SMEs to identify, prioritize and eliminate project risk properly, by ensuring on-time completion, timely delivery and to take full profit by using risk management practice in firm (Baudrit, Taillandier, Tran, & Breyse, 2019).

## 2.6 Project Management Practices and Knowledge Management

The idea of knowledge was defined by Falkner and Hiebl (2015) as a constant flow in which knowledge is characterized into logical processes such as sharing and transferring; creating and applying; localizing and capturing. They try to clarify KM as a procedure of organizing knowledge to allow formation of completely new knowledge since also accelerating the advancement (Cano-Kollmann, Cantwel, Hannigan, Mudambi, & Song, 2016). Others have explained that KM also contributes to the productivity of a cost-cutting environment (Mohapatra, Agrawal, & Satpathy, 2016). In the modern era knowledge as a competitive asset is acknowledged across the world and interest in KM is constantly growing in most of the organizations. Gradually, it has become a usual approach of business and now can be observed to expand it into essential components of many PMPs in organizational business strategies (Pemsel, Muller, & Soderlund, 2016). This reality is encouraged by the increasing reputation of the knowledge-based view of the SMEs in which knowledge is known as the mean sustainable aggressive technique (Ahammad, YedidiaTarba, Liu, & W.Glaister, 2016). As a result, SMEs are implementing different KM perspectives to show, share and use their knowledge assets to execute practices of project management. But with this growing trend still, SMEs are not expert enough in managing their knowledge assets gained, during the projects. Knowledge is persistently known as a significant asset for SMEs at a time of universal competition; SMEs are becoming more knowledge concentrated and are hiring minds more than hands (Omerzel, 2018).

A project is a unique, temporary or short-term organization which deals with all type of uncertainties which exit mostly in every type of project, project management is used to get customer satisfaction and meeting goals of the project (Eweje, Turner, & Muller, 2014). Support these outcomes by breaking down information from SMEs crosswise over six European nations despite the fact that not featuring nation explicit contrasts. He discovers proof that vertical systems enhance the likelihood of an SME to acquaint item advancement and with produce turnover from

a development. In any case, they don't concentrate on nation contrasts in their examination despite the fact that their example comprises of SMEs from various nations. Australian SMEs are using cooperation methods with each other as well as the number of hierarchal system ties and the barrier of communication affect the likelihood of presenting item development. Recognizing participation inside a similar nation and with outside nations (PMBOK 2004). It should likewise be noticed that the reliant variable was itself subordinate upon the capacity of the respondents to precisely test a distinction in the efficiency of their organizations. A probability is likewise recognized that respondents will have varying deciphered what it is to utilize project management, as this expression was not joined by a definition in the study instrument, given the span of the study populace it is foreseen that reactions will have united on some normal understanding. Future research may wish to all the more intently investigate what it implies for a small to medium size organizations utilize project the board and whether this subjectively contrasts from the utilization of project management in bigger associations.

Since projects are frequently independent, temporary and complex goals, they don't actually fit into routine firm procedures and regularly include best methods of firm and explicit administration practices and strategies (Bathelt, Cohendet, Henn, & Simon, 2017). Projects are brief coordination framework in which different talented specialists group utilize their knowledge to do perplexing and imaginative tasks in a predetermined time (Bathelt, Cohendet, Henn, & Simon, 2017).

Despite the extensive literature on knowledge sharing, little is known about how people share knowledge, especially in a project environment. Knowledge management makes sense for improving project management. If the knowledge in both tacit and explicit forms could be captured and shared within the project management community, organizations would benefit a lot (Mohapatra, Agrawal, & Satpathy, 2016). It is necessary, for the project management practices, to integrate the management of knowledge for the projects can be managed in an effective and efficient way. The processes that govern the management should be defined in an ideal development project. Projects must benefit from the knowledge of past

projects to improve the management of the project, through the knowledge and experience (Bassi, 2014). Thus, this hypothesis assumed that project management and knowledge management have a significant relation.

**H<sub>a2</sub>: There is positive impact of project management practices on knowledge management**

## 2.7 Knowledge Management and Performance of SMEs

Small and Medium Enterprises have essential role in local economic activities. Not solely their ability to give many of employment, however, conjointly as a generator of primary and secondary sources of financial related matters for several households. Small and Medium Enterprises are a vital engine for the event of native economies and communities (Dasari, Jigeesh, & Prabhukumar, 2015). Over the past decades, SMEs have developed quickly. Small and Medium Enterprises plays a significant role in the economic process within the firm for economic cooperation and development break, providing the contribution for many new jobs. Additionally, efficiency growth and so economic process are impressively influenced by the competition intrinsic in entry and exit of smaller companies. This method includes high job turnover rates and the churning way in markets that is a key part of the competitive method and structural adaptation (Cerchiono, Espacito, & Spardo, 2016).

The spread firm structures dependent on escalated community oriented connections among SMEs endeavors and between real organizations and SMEs has produced focused and dynamic conditions where information preparation in SMEs is progressively essential in supporting the system of coordinated effort and the aggressiveness of the entire framework. Practices of knowledge management e.g., knowledge storing, knowledge mapping, knowledge creating and knowledge distribution cause the increment of performance of Small and Medium Enterprises. By

using these practices in firms new knowledge creates as how to increase profitability and contributes also in GDP and employment rate. There is a lot of studies portraying how vast organizations are effectively utilizing information the executives knowledge management rehearses, while SMEs show poor use knowledge management rehearses and the advantages of knowledge management appropriation are not completely abused by these organizations. Knowledge management information should be properly conveying information system to store data for future use. Knowledge management always contribute positively in firm performance. In spite of the fact that there are numerous investigations that dissect the procedures of scattering of knowledge and feature the appropriation of knowledge management in vast organizations, as respects SMEs, the structure of information is as yet divided. In addition, the level of appropriation of knowledge management is not homogeneous and there are as yet significant contrasts among different enterprises. A few kinds of research feature that the elements keeping the appropriation of practices and procedures of knowledge the executives by SMEs are specifically or some like others.

Small and Medium Enterprises are mainly focusing on the deterministic limitations of the competitive environment, especially the international ones (Harc & Sertic, 2018). By creating, accumulating, organizing and utilizing knowledge through knowledge management is a process to meet purposes and improve the performance of SMEs. In a lot of studies by researcher mentioned that there is a link among knowledge management and performance of SMEs (Wickramasinghe, 2014). In innovation, it involves the flow and mobilization of multiple sources of knowledge management. Nonetheless, there is still a rare of studies that check the knowledge management as a mediator in the performance of SME. Knowledge management within SMEs is a research area of growing importance. Literature shows that by using knowledge management techniques performance of SMEs will be enhanced. So, it is hypothesized that knowledge management has a significant impact on SMEs performance.

**H<sub>a3</sub>: There is positive impact of Knowledge management on performance of SMEs**

## **2.8 Mediating role of Knowledge Management between Project Management Practices and Performance of SMEs**

Knowledge management is one of the best techniques of getting accurate data. In the collection, accumulating, acquiring and seeking of knowledge process, employees and managers collaborate with each other to use of that knowledge. After acquiring and capturing knowledge, in process of conversion of knowing whether it is explicit or tacit is distributed, structured, integrated and organized. Knowledge is applied and shared among employees in the organization tacit-explicit when knowledge application is processed. During the process, knowledge is stored in organizational process asset for future use. Kimaiyo and Kapkiyai (2015) discussed the effect of knowledge management on the process, people and SMEs performance. They noted that knowledge management could affect the performance of firms by using project management practices in two ways: (i) knowledge management can affect the performance of firms by using practices of project management. The same research is done by Adam (2016) who recommended that the performance of a firm is improved when they use and create knowledge. Moreover, Lj, Petrovic, and Mihic (2015) suggested in his study that knowledge protection, transfer, and development improved organizational performance while studying on biotechnology and telecommunication. Projects can take any form which is on the whole extraordinary fit as a fiddle and size (Shannak, 2012). They may be a basic PC setup and establishment which are done by just a single individual inside one day. Despite what might be expected, confounded projects, for example, a traffic observing framework usage take a very long time to finish from commencement, arranging, execution, checking, controlling to shutting. There are distinctive gatherings of partners taking an interest amid various periods of these perplexing projects. This is to guarantee that these projects can meet in any event the prevalent triple requirements, for example, project extension, time and cost. Tasks should be possible by a smaller scale business or an expansive worldwide organization utilizing confused project management devices and procedures. Project

the board project management alludes to the deployment of knowledge, capabilities, instruments, and measures to expand activities to meet the task necessities. Alternate points of view exist in regards to the way toward overseeing projects.

Knowledge management decidedly influences the accomplishment of business esteem in the task-based associations. Successfully overseeing project information can assist associations with achieving larger amounts of project management achievement (M.S.Reed, L.C.Stringer, I.Fazey, A.C.Evely, & J.H.J.Kruijsen, 2016). In performing projects under the limitations of time and assets, information and experience assembled in various undertakings are not in every case deliberately incorporated into a knowledge management base. The issue of knowledge lost from projects can prompt the likelihood that great exercises from past projects are not exchanged to existing or new undertakings, just as past errors being rehashed (Rai, Agrawal, & Khaliq, 2017). Beneficial advantages and oversights from past projects are known as knowledge activities. Lessons gained from past projects ought to be utilized as contributions to current undertakings, and can be utilized to enhance the administration of activities. So Tariq, Blackburn, Olson, and Blesner (2016) also brought up that the act of knowledge management can impact the administration of activities.

Knowledge management is the way of achievement in projects. In looking into KM in the undertaking setting, most investigations center on the connection among KM and task execution. For instance, it was inspected how KM affected execution in activities in SMEs. Their investigations demonstrated that if information is effectively overseen, business esteem can be emphatically affected. Focusing on the significance of overseeing client knowledge in enhancing deals projects. Through sharing and locating knowledge, firm performance is also improved. Knowledge management has a positive association with firm performance (Shiaw-TongHa, May-ChiunLo, & Yin-ChaiWang, 2016). Thus, it is hypothesized that knowledge management mediates the association among project management practices and SMEs performance positively.

**H<sub>a4</sub>: Knowledge management mediates the relationship between project management practices and performance of SMEs**



## **2.9 Moderating role of Business Environment between Project Management Practices and Performance of SMEs**

SMEs performance-related studies have drawn attention from researchers. On firm performance studies it has focused on three particulars: Internal Environment or firm structure, firm strategies Sarfaraz, Mohsen Taheri, Vatandoost, and Dastani (2015) and External Environment of business (Leonidou, Christodoulides, Kyrgidou, & Palihawadana, 2017). The business environment has been divided into three determinants: the first determinant is that who affect activities of business is an external focus group, including government policies, suppliers, regulatory agencies, competitors and agencies. The second determinant that affects the business environment is focused on external forces including munificence, dynamism, and complexity. The third determinant which affects businesses is managerial discernment. All determinants can affect future of organizations and project managers should be ready to get benefits and avoid/dealing with uncertainties and they should measure the effect of both probabilities on SMEs performance (Virglerov, Dobes, & Vojtovi, 2016). SMEs business environment quality may be measured with the existence of probabilities including internal and external. Primary market risk is the most dangerous threat from all types of risk which can influence the performance of SMEs. There is something important and complex to be solved which causes emerge of the project. Due to high-level coordination and a purposeful organizational effort in order to precede a number of activities project organization develop policies. Project management is a tactic of dealing and managing projects. Project management practices are including practices, tools and techniques, and organizational process assets to handle the manufacturing of products and services (Petro & Gardiner, 2015). Project management is getting popular worldwide. Project management has turn into a distinguishing way to manage business activities nowadays. Project management has been using in all types of organizations like academic institutes, corporations, government and all type of organizations by using project management techniques to get good

results in lower cost and within time (Chanpet, Chomsuwan, & Murphy, 2018). Mostly all project managers are in the first line when they come to pledge customer satisfaction. Using all definitions of project management, most projects get success cause of project management. Therefore, it is hypothesized that the business environment will moderate significantly project management practices and performance of SMEs.

**H<sub>a5</sub>: Business environment moderate the relationship between project management practices and performance of SMEs**

## 2.10 Theoretical Support

Many theoretical perspectives have been presented by different researchers which are helpful worldwide to support the studies of project management practices but resource-based view theory can cover the variables of the present study.

### 2.10.1 Resource Based View Theory

The Resource-based view (RBV) theory deliver comparative advantage to firm with strategic resources set up by managerial framework. Firm may be exploiting resources to meet a sustainable competitive advantage. Barney (1991) mentioned that sustained competitive advantage derives from the resources and capabilities. Barney (1991) presented VRIO framework that considers strategic resources as those which are Valuable, Rare, Imitable and involve Organizational support. The RBV is a strategic management theory that is widely used in project management; it examines how resources can drive competitive advantage. Competitive advantage is the ability to create more value than rivals and therefore, generate higher returns on investment. Sustainable competitive advantage requires enduring benefits through capabilities that are not easily imitated (Almarria & Gardiner, 2014). In this study, distinct features of the resource-based theory are added to the efficiency of project management practices so the performance of SMEs can be clearly discussed.

The term Project management practice is highly effective as a firm who use it can earn a high income. Project management practices including risk management, cost management, communication management, and scope will be highly effective on the direct performance of SME. The RBV literature indicates that competitive advantages can be created and sustained via knowledge use. For organizational knowledge to offer a sustainable competitive advantage, it should have the following four properties: it should be valuable, rare, imperfectly imitable and non-substitutable or imperfectly substitutable. Therefore, we believe that RBV is an appropriate theory to explain whether knowledge management systems indeed formally and empirically yield competitive advantage, and to formally and empirically explain the nature of the relationship between knowledge management and SMEs performance.

Resource-based view theory defines authentic entire resources of a firm that has a positive impact on the business environment. Though, many efforts can be made to support SMEs performance and business environment as it led to firm sustainability. From all discussion, it is observed that RBV theory is supporting theory that eliminates the questions and arguments with supportive relevancy. The link between business environment and RBV is unavailable in literature. For the clear study and to find the linkage of variables moderating variable business environment is added.

## 2.11 Theoretical Framework

Theoretical framework is developed to check the Small and Medium Enterprises performance by implementing project management practices with mediating role of knowledge management and moderating role of business environment as there is hardly any study on combination of these variables. Fig 2.1 shows the relationship of independent, dependent, mediator and moderator variables. Moderator business environment and mediator knowledge management are added to check relation of PMP and Performance of SMEs.

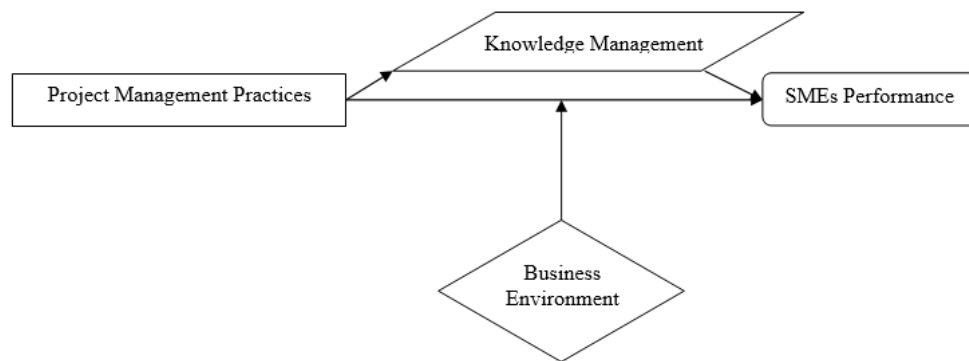


FIGURE 2.1: Research Conceptual Model of PMP impact on performance of SMEs through mediation KM and moderation of Business Environment

## 2.12 Hypothesis of the Study

**H<sub>a1</sub>:** There is positive impact of project management practices on performance of SMEs.

**H<sub>a2</sub>:** There is positive impact of project management practices on knowledge management.

**H<sub>a3</sub>:** There is positive impact of knowledge management on performance of SMEs.

**H<sub>a4</sub>:** Knowledge management mediates the relationship between project management practices and performance of SMEs.

**H<sub>a5</sub>:** Business environment moderate the relationship between project management practices and performance of SMEs.

# Chapter 3

## Research Methodology

The aim of this chapter is to discuss the research process and specifically the process that was applied to this study. Research methodology mainly focuses on research design, research instrument, data analysis and data collection techniques.

### 3.1 Research Design

This research is used to highlight the effect of project management practices on the performance of SMEs, for this co-relational study has been used in this research. Quantitative research design will be used in this chapter. The research findings are based on the determinants calculated from each of the sample or element of the population. These findings will help the researcher to select the appropriate sampling technique, instruments for the data collection and analysis of the data. This will help in outcomes exhibited to the sport sector of Pakistan from the sample statistics that will likely be used.

#### 3.1.1 Research Philosophy and Quantitative Research

This research considers philosophy of determinism, in which previous research and existing theories were employed to demonstrate and support our hypothesis which will then be tested empirically for verification of the proposed hypothesis following

hypothetical deductive research method which is. The hypothetical deductive model or method is an anticipated description of scientific method. According to this method, scientific inquest initiates by framing a hypothesis in a way that could credibly be falsified by a test on visible data. It is then proposed to compare the descriptive value of competing hypotheses by testing how strongly they are authenticated by their predictions. Hence, in this research quantitative research has been utilized in order to collect the quality data for the purpose of associating variables to each other and for indicating the type of relationship between the variables used in the study.

### **3.2 Timeline of Study**

Data were collected in duration of three months and at once. Nature of data was cross sectional.

### **3.3 Unit of Analysis**

The unit of analysis is being analyzed in a study. It is who that is being studied for measurement of variables. In this research, Small and Medium Enterprises are taken as unit of analysis (Zikmund, J.Babin, Car, & Griffin, 2015). The middle level managers and employees of SMEs will be act as representative. Generally, unit of analysis is mainly fundamental characteristic in any research study. In research study, unit of analysis can range from an individual to different groups, organizations, cultures etc. Since this study is designed on relationship i-e., the effect of project management practices on SMEs performance, therefore, unit of analysis was the middle level managers and employees of sports sector of Pakistan. However, to know the effect of project management practices noses through knowledge amongst middle level managers and employees, study needed to approach the specific sector of SME which basically required and promoted project management practices in their projects under affective presence of the knowledge management and business environment.

## **3.4 Population and Sample**

The research findings are based on the determinants calculated from each of the sample or element of the population. The population size of the research determines the elements of the samples. Each element of the population is treated as individually. Each element of the total population is known as the sample of the population. Population for this study is SMEs of sport sector of Pakistan. The total targeted population size for conducting the study was 400, from which i received only 350. From 350, 20 questionnaires were not filled properly so i used 300 for analysis and 30 for pilot testing.

## **3.5 Sample Characteristics**

The demographics considered in this study are; owners/managers/employees age, their dynamic experience in the sports sector and information linked to gender and qualification. Sample characteristics details are elaborated as follows:

### **3.5.1 Gender of Respondents**

Gender is an element which remains in highlights for the purpose to maintain gender equality, so, it is also considered as the important element of the demographics because it differentiates between male and female in a given population sample. In this study, it has been tried to make sure the privilege of gender equality but still it has been observed that ratio of male employees is considerably larger than the ratio of female employees, it includes the consolidated information as that of stakeholders also. Table 1 depicts the ratio of male and female respondents. It is evident that among respondents 69.7% were male and 30.3% were female. Number of male are 209 and number of female was 91. Hence, it has been tried to make sure the perquisite of gender equality but still it has been observed that ratio of male employees is larger than the ratio of female employees.

TABLE 3.1: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	209	69.7	69.7	69.7
Valid	Female	91	30.3	30.3	100.0
	Total	300	100.0	100.0	

### 3.5.2 Age of Respondents

Age is considered as one of the demographics, to which respondents sometimes feel uncomfortable to disclose openly. So, for the convenience of respondents, scale/range was used to collect information regarding their age. It has been shown in Table 2 among respondents 94.7% were having age ranging between 18-25, 5.3% were having age ranging between 26-35.

TABLE 3.2: Age

		Frequency	Percent	Valid Percent	Cumulative Percent
	18-25	284	94.7	94.7	94.7
Valid	26-35	16	5.3	5.3	100.0
	Total	300	100.0	100.0	

### 3.5.3 Qualification of Respondents

Education is the most important element which contributes towards the prosperity of the whole nation and it is also the basic need of the hour to compete globally. Hence after gender and age, qualification /education is another vital dimension of the demographics. Education opens up many new and unique paths for success and creativity in order to gain competitive advantage amongst all the other countries



around the globe. Probably education plays an important role in demonstrating creativity and innovation in project tasks by facilitating the effective project management practices. It has been shown in Table 3 that most of the respondents were having qualification of bachelor, which comprises 85% of the total respondents chosen as the true representative sample of the whole population. 11% were having qualification of intermediate and 4% respondents were having qualification of matric amongst the 300 respondents.

TABLE 3.3: Qualification

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Matric	12	4.0	4.0	4.0
Intermediate	33	11.0	11.0	15.0
Bachelor	255	85.0	85.0	100.0
Total	300	100.0	100.0	

### 3.5.4 Experience of Respondents

To collect information regarding the experience of the respondents, different ranges of experience time period were developed so, that every respondent can easily indicate the specific tenure of their experience in the relevant field of SMEs projects. It has been shown in Table 4 that most of the respondents were having an experience ranging between 2-5 years which depicts that 50.7%, 28.3% respondents were having experience ranging between 0-1 years and 21.0% respondents were having experience ranging between 6-10 years. As experience includes gaining knowledge about new procedures and ideas to bring creativity in the tasks, experience is considered as one of the most effective demographics which contribute too much towards the project management practices, knowledge management and knowledge sharing domain for the success of the creative and innovative projects.

TABLE 3.4: Experience

	Frequency	Percent	Valid Percent	Cumulative Percent
0-1	85	28.3	28.3	28.3
2-5	152	50.7	50.7	79.0
Valid 6-10	63	21.0	21.0	100.0
Total	300	100.0	100.0	

## 3.6 Data Collection Technique

The researcher used the primary data collection method to collect the data from the respondents. The structured questionnaires of the identified variables will be used for collected data from the respondents. The questionnaires will be in English language. For analysis 5-point Likert scale will be use.

## 3.7 Instrumentation

### 3.7.1 Measures

In this study for collection of data, scale is chosen very carefully who cover all dimensions of variables. The questions will be about variables that are being studied. The data was collected through adopted questionnaires from different authentic sources. Almost 400 questionnaires were distributed in sports sector that has been visited during questionnaire distribution period. While received only 350 questionnaires back from which 20 were not properly filled. From 330 questionnaires only 30 used for pilot testing and 300 for analysis. According to the nature of research, items included in the questionnaire that is project management practices, SMEs performance, knowledge management and business environment was filled by the middle level managers and employees of sports industry. 5-points

Likert-scale 1 (strongly disagree) to 5 (strongly agree) was used in questionnaires in order to collect data from respondents.

### **3.7.2 Dependent Variable: Performance of SMEs**

The instruments that cover financial performance of SMEs will be new product development, market size, profit volume, capital investment, sale volume and number of employees. The scale has been adopted from Atalaya, Anafarta, and Sarvanc (2013). The number of items is 15.

### **3.7.3 Independent Variable: Project Management Practices**

The instruments that will be used to measure project management practices will mainly cover four basic areas including risk, cost, scope, and communication management. The scale has been adopted from Ollows (2012). The scale includes 32 items.

### **3.7.4 Mediating Variable: Knowledge Management**

5-items scale developed by Kearns and Sabherwal (2014) adopted on organizational emphasis on KM. Knowledge management process reveal two items attitude towards organization process. Further three items point out the manifestation of such importance of knowledge management in between firms individuals in a firm that emphasize on knowledge management would have permission to organizations acquaintance as well as to processes for identifying and exploiting the organizations knowledge. Its important practices are including knowledge sharing, knowledge mapping and knowledge storing. These practices are very fruitful and can enhance performance of Small and Medium Enterprises as which is going beyond than average percentage. By knowledge sharing with competitors firms will be able to reduce its defects which is causing of lower performance.

### 3.7.5 Moderating Variable: Business Environment

The instruments that will be used to measure business environment variable will mainly cover two basic areas including information intensity and competition intensity. The scale has been adopted from Thong and Yap (1995). The scale consists of 6 items.

## 3.8 Statistical Tool

Correlation and linear regression were used in order to investigate the relation between independent and dependent variable i.e. project management practices and SMEs performance. To know about the strengthen relationship of variables correlation was used. Regression analysis helps to ensure that whether the hypothesis is accepted or rejected. For analysis Preachers and Hayes (2004) method was used.

TABLE 3.5: Instruments

<b>Variable</b>	<b>Source</b>	<b>Items</b>
<b>SME's Performance</b>	Atalaya, Anafarta, and Sarvanc (2013)	15
<b>Project Management Practices</b>	Ollows (2012)	32
<b>Knowledge Management</b>	Keams and Sabherwal (2014)	5
<b>Business Environment</b>	Thong and Yap (1995)	6

## 3.9 Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) is used to confirm the validity of data and model fits to data. To perform CFA, AMOS is used. There are four latent (unobserved) e.g. project management practices, SMEs performance, knowledge management and business environment and fifty-eight items of observed variables.

Unobserved or latent variables are those which cant be measure directly, other variables are used to measure unobserved variable whereas, observed variables can be measured directly. Different indices were used for model fit which includes RMSEA (Root mean square error of approximation) and the value should be between 0.05 to .10, CFI (Comparative t index), its standard value is  $\geq 0.80$ , TLI (Tucker-Lewis index) standard value is  $\geq 0.9$  or sometime  $\geq 0.9$  is permissible, GFI (Goodness of t index) threshold is 0.90 and the standard value of  $2/df$  (mode chi-square) must be  $\leq 3$  (Schreiber et al., 2006). According to indices standards following table is showing that four factor model has good discriminate validity and models ts to the data.

TABLE 3.6: Confirmatory Factor Analysis

Model	CMIN	df	$\chi^2/Df$	RMESA	GFI	CFI	TLI
<b>Hypothesized</b>	1088	429	2.67	0.089	0.87	0.88	0.91
<b>measurement model</b>							

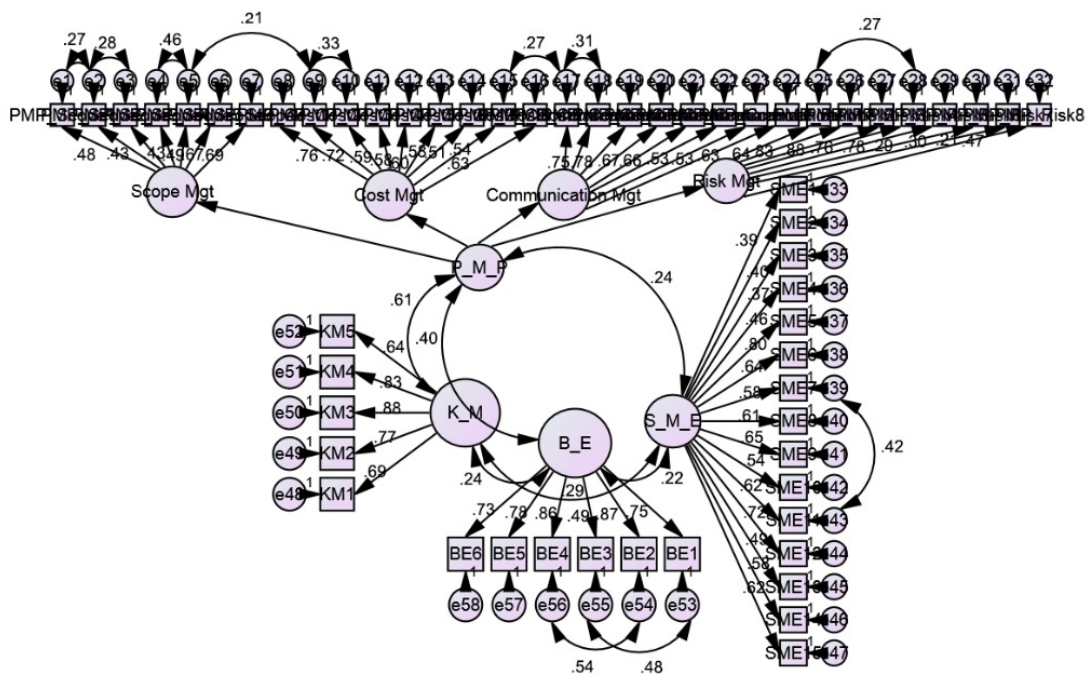


FIGURE 3.1: CFA Model

### 3.9.1 Pilot Testing

Before going to perform something on a larger scale it would be a very proactive and effective approach to conduct a pilot testing for it, as it will avoid many risks related to wastage of resources and time. Hence, pilot testing of almost 30 questionnaires were carried out in order to validate, whether results are familiar and in line with the proposed hypothesis or not. After conducting the pilot testing it was concluded that there was no significant problem in the variables and the scales were absolutely reliable for the pilot study conducted.

### 3.9.2 Reliability Analysis

Reliability is referred to a procedure of giving same consistent outcomes again and again when the particular thing is being tried over number of times, same is for the scales. It tells about the internal reliability of the variables and tells about if those variables have a link between them or nor along with that it also measures the single construct. Significant range for Cronbach alpha is 0 to 1. Higher the value of Cronbach alpha, the reliability of the scale to measure the construct it is meant to measure is also higher. Scale is considered reliable when the value of alpha above 0.7 and it is less reliable in measuring the selected set of constructs when the value is below 0.7.

TABLE 3.7: Scale Reliabilities

<b>Variables</b>	<b>Cronbach Alpha</b>	<b>Items</b>
SMEs	0.786	15
PMP	0.829	32
KM	0.792	5
BE	0.810	6

### **3.10 Data Analysis Techniques**

The data was collected from 300 respondents and it was analyzed on SPSS software with version 21. Following were the procedures performed for data analysis.

1. Complete filled questionnaire were used in data analysis other were discarded.
2. Each variable item was coded and coded items were used for data analysis.
3. To describe the frequency of sample characteristics, frequency tables were developed.
4. Mean of numerical values of each variable calculated for analysis.
5. Reliability analysis was conducted; Cronbach alpha of each variable was calculated.
6. To identify strength of relationship between variables, correlation analysis was performed.
7. Regression analysis by Preacher and Hayes method was used to run mediation and moderation.
8. Hypothesis was tested with Preacher and Hayes methods in order to find out whether hypothesis is accepted or rejected.

# Chapter 4

## Results

### 4.1 Correlation Analysis

Generally, correlation analysis is used to determine relationship among variables. In this research work, foremost objective to conduct correlation analysis is to find out the correlation between project management practices and SMEs performance with the mediating role of knowledge management and the moderating role of business environment to make the proposed hypotheses valid.

Correlation analysis is conducted in order to know about the nature of variation between the two variables that if the variables vary together at the same time or not. Basically, correlation analysis does not entail relationship between two or more than two variables because it is different from the regression analysis.

In correlation analysis, Pearson correlation analysis tells about the strength and nature of the relationship through Pearson correlation range i-e from -0.1 to 0.1. Hence, through magnitude value we can conclude the strength of the relationship between two variables and that magnitude value can generalize by the distance of correlation from zero. If the correlation is distant from zero that means the relation between the two variables is strong and vice versa. But if the values are zero that straightly means that there exists no relationship between the understudied variables. Positive and negative sign depicts the nature of the relationship, if the sign is positive that means if one variable will be in increased causes increase other



variable and that is considered as direct relationship and in the same way if the sign is negative that means that increase in one variable will cause decrease in another variable and that would be an indirect relationship.

The below table shows correlation, standard deviation, and mean among the variables that are being studied under this study. And the values of correlation are depicting the nature and magnitude of relationship between the variables. Project management practices have a mean value of 2.5008 with a standard deviation of 0.4904. The mean of SMEs performance is 2.377556 whereas, standard deviation is 0.4073. Knowledge management which acts as a mediator between project management practices and SMEs performance has a mean value of 2.4420 and a standard deviation of value 0.7763. Business environment which plays a moderator role between project management practices and SMEs performance has a mean value of 2.3766 whereas, standard deviation is 0.7490. While, correlation analysis table is given below:

TABLE 4.1: Correlation Analyses

<b>Variables</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Project Management Practices</b>	1			
<b>Business Environment</b>	.634**	1		
<b>Knowledge Management</b>	.613**	.532**	1	
<b>Small and Medium Enterprises</b>	.230**	.159**	.176**	1

P < .001\*\*\*, p < 0.05\*\*, p < .01

Correlation table explains that there is a significant relationship between project management practices and SMEs performance, where  $r = .230^{**}$  at  $p < .01$ . It can be seen from the given above table that project management practices have a positive relationship with knowledge management, where  $r = .613^{**}$  at  $p < .01$ . It was seen that at  $r = .634^{**}$  at  $p < .01$ , project management practices have a significant relation with the business environment. There is a positive relationship between SMEs performance and knowledge management, where  $r = .176^{**}$  at  $p < .01$ . A positively significant relationship exists between SMEs performance and business environment, where  $r = .159^{**}$  at  $p < .01$ . Knowledge management

and business environment also has as a positive relationship, where  $r = .532^{**}$  at  $p < .01$ .

## 4.2 Regression Analysis

To analyze the existence of relationship between the variables, correlation analysis has been performed in the study, however mere reliance on the correlation analysis does not suffice because it just shows the existence of relationship between variables through an inadequate support and doesn't tell about the causal relationship amongst the variables. Therefore, regression analysis is executed so, as to validate the dependency of one variable on another variable. Regression analysis basically describes the limit to which one variable depends on another variable i.e. independent variable on which it is being regressed. In this study, Preacher and Hayes (2004) methods have been used for both mediation and moderation regression analysis. Moderation regression analysis is conducted to observe the interaction effect of project management practices and SMEs performance. Likewise mediation regression analysis was conducted to observe the mediation effect of the mediator knowledge management on the relationship of project management practices and SMEs performance. Model 1 for moderation and Model 4 for mediation is used in Preacher and Hayes (2004) process both for mediation and moderation are conducted separately. From 4.2, it is concluded that project management practices have a direct positive and significant relationship with the SMEs performance, hence the un-standardized regression coefficient indicates that ( $B = .1631$ ,  $t = 2.7499$ ,  $P = .0063$ ), the results in the below table provides strong justification for the acceptance of hypothesis. So, the hypothesis H1 i.e. there is a positive linkage among project management practices and SMEs performance is accepted. Results also shows that there is a positive and significant relationship between project management practices and knowledge management as indicated by un-standardized regression coefficient ( $B = .9707$ ,  $t = 13.3984$ ,  $P = .0000$ ), hence the hypothesis H2 i.e. there is a positive association between project management practices and knowledge management is accepted. It is predicted from the table

given below that knowledge management and SMEs performance have insignificant relationship between each other. Evidence is provided through the un standardized regression coefficient as ( $B = .0292$ ,  $t = .7791$ ,  $P = .4366$ ) and from these values it is concluded that H3 i-e there is no association between knowledge management and SMEs performance is totally rejected. Results indicates that knowledge management doesn't mediate the relationship between project management practices and SMEs performance, as the indirect effect of project management practices on SMEs performance through knowledge management has the upper and lower limits of  $-.0429$  and  $.1122$  and contain zero in the boot strapped 95% confidence interval, thus it is concluded that the hypothesis H4 i-e there is no mediating role of knowledge management between project management practices and SMEs performance is rejected.

TABLE 4.2: Regression Analysis

	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
<b>Project management practices</b> → <b>SMEs</b>	.1631	.0593	2.7499	.0063
<b>Project management practices</b> → <b>KM</b>	.9707	.0724	13.3984	.0000
<b>Knowledge management</b> → <b>SMEs</b>	.0292	.0375	.7791	.4366
	<b>LL95%CI</b>	<b>UL95%CI</b>		
<b>Bootstrap results for indirect effect</b>	-.0429	.1122		

TABLE 4.3: The moderating effect of business environment

	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
<b>constant</b>	3.2405	.3229	10.0365	.0000
<b>PMP</b>	-.3669	.1363	-2.6922	.0075
<b>BE</b>	-.4271	.1058	-4.0354	.0001
<b>Int term</b> → <b>SMEs</b>	.1732	.0389	4.4502	.0000
	<b>LL 95%CI</b>	<b>.0966</b>	<b>UL95%CI</b>	<b>.2498</b>

Results indicates that business environment moderates the relationship between project management practices and SMEs performance, as the indirect impact of

project management practices on SMEs performance through business environment has the upper and lower limits of .0966 and .2498 and doesn't contain zero in the bootstrapped 95% confidence interval, thus it is concluded that the hypothesis H5 i.e. There is moderating role of business environment among project management practices and SMEs performance is accepted.

Note: Bootstrap sample size 5000.

LL =lower limit; CI = condence interval; UL = upper limit.

N=300, Control variables were, Gender, Age, Experience and Qualication, \* $P < .05$ ; \* \*  $P < .01$

TABLE 4.4: Summary of Hypothesis Accepted and Rejected

<b>Hypothesis</b>	<b>Statement</b>	<b>Result</b>
<b>H<sub>1</sub></b>	Project management practices have a positive impact on performance of SMEs.	<b>Accepted</b>
<b>H<sub>2</sub></b>	Project management practices has positive impact on knowledge management	<b>Accepted</b>
<b>H<sub>3</sub></b>	Knowledge management has positive impact on performance of SME's	<b>Rejected</b>
<b>H<sub>4</sub></b>	Knowledge management mediates the relationship between project management practices and performance of SMEs.	<b>Rejected</b>
<b>H<sub>5</sub></b>	Business environment moderates the relationship between project management practices and performance of SMEs.	<b>Accepted</b>

# Chapter 5

## Discussion and Conclusion

### 5.1 Discussion

Previously a little bit research on project management practices and performance has been done (Almarria & Gardiner, 2014). Studies support the notion that variables such as project management practices and business environment are important variables to be explored in detailed and have an impact on SMEs performance (Sarfaraz, MohsenTaheri, Vatandoost, & Dastani, 2015).

The major focus of this research was to first study the relationship between project management practices and SMEs performance in sports sector of Pakistan. Alongside, the mediating role of knowledge management is assessed and role of business environment is assessed as a moderator between project management practices and SMEs performance. The research suggests that project management practices has a significant impact on SMEs performance which means that if there are systematic project management practices in SMEs the performance of the projects will be improve. Also, a positive association has been found between project management practices and knowledge management. Hence H1, H2 and H5 are accepted since a positive linkage between business environment and SMEs performance has been found. So, performance improves with good business environment. Likewise, business environment plays the role of moderation between the relationship of project management practices and SMEs performance, therefore, fifth hypothesis H5has

also been accepted. Furthermore, it has been found that knowledge management turns out to be the insignificant mediator and negatively influence the relationship between project management practices and SMEs performance.

### **5.1.1 Hypothesis H1: There is positive impact of project management practices on performance of SMEs**

Hypothesis 1 anticipated that project management practices and SMEs performance have a positive relationship with each other. The results of the hypothesis ( $\beta = 0.1631$ ,  $t = 2.7489$ ,  $P = .0063$ ) are also approved the existence of significant relationship between both the variables. The coefficient is found to be 0.1631 which illustrates that if there is a one unit change in project management practices then there is likelihood that SMEs performance would be increased by 16%. It is evident from the past research that project management practices are considered as a key organizational asset that stimulates its performance when it encloses all the key functions of project management practices that is its acquisition and dissemination rather than only having a document repository (Chanpet, Chomsuwan, & Murphy, 2018). The study also supports the findings of organizational performance adopted from Hasibuan (2015) considered SMEs performance way of back on investment, income boom, market-share advantage, and basic competitive functions. Therefore, project management practices bring improvements in SMEs performance by having embedded functions in place for generating acquiring practices, generating new skills by applying it at the workplace and also sharing the practices knowledge across the project team. This facilitates in providing better outcomes that is the actual output achieved coincides with the initially set targets. According to Pakistani context, the vital role of project management practices has been recognized and systems/processes are in place either in a formal or an informal way for ensuring the sharing of knowledge so, that new skills can be generated and disseminated across the organization which ultimately contributes towards the enhancement of performance of SMEs projects.

### **5.1.2 Hypothesis H2: There is positive impact of project management practices on knowledge management**

Hypothesis 2 assumed that there is a significant association between project management practices and knowledge management and the results ( $\beta = 0.9707$ ,  $t = 13.3984$ ,  $P = .0000$ ) of the hypothesis also underline the presence of said significant relationship. The coefficient turned out to be 0.9707 which shows that if there is a one unit change in project management practices then there is likelihood that knowledge management would be increased by 97%.

Past studies have shown evidences connection between project management practices and knowledge management (Handzic & Durmic, 2015). For an organization in the form of improved productivity, innovation, agility or reputation, taking into consideration component of knowledge management outcome that knowledge management creates value the extended model incorporates. Knowledge management plays a very serious role in project-based organizations since it is necessarily important to acquire new knowledge for utilization in the future projects. Key element in management process is conversion of acquired data into meaningful information and generation of new knowledge. Knowledge management is change in the state of the projects meaning that exploiting and developing the already existing knowledge and it is being use from project to project. When the SMEs will have ability to implement new project management practices and to associate between the past and the future projects experiences only then there is existence of successful knowledge management. Results shows that project management practices has positive impact on knowledge management. These results will be suitable for Small and Medium Enterprises performance. Therefore, for any type of project being executed in Pakistan like software development, education and services project or an infrastructure project, systematic project management practices needs to be there in the organization to have knowledge management so, that teams can share and learn about new project management practices required for the successful implementation of the projects, since knowledge is the actual development and up gradation of knowledge. So, hypothesis H2 is accepted.

### **5.1.3 Hypothesis H3: There is positive impact of knowledge management on performance of SMEs**

Hypothesis 3 presumed that there is an insignificant association between knowledge management and SMEs performance and the results ( $\beta=0.0292$ ,  $t= 0.7791$ ,  $P=0.4366$ ) of the hypothesis also underline the fact that there is no relationship between the two variables. The co-efficient appeared to be 0.0292 which shows that if there is a one unit change in knowledge management then there is a probability that SMEs performance would be increased only and only 02%.

Though it is evident from the past studies that knowledge management plays an important role in improving organizational performance (Saqib, Udin, & Baluch, 2017). Firms can sustain their competitive advantage competing in the knowledge-based economy by building their capability to learn faster than their competitors and harnessing their own unique knowledge (Daud & Yusoff, 2014). From past study it is clear that knowledge management plays an important role as an energetic logical element of different activities which are developed and practiced by firm (Adam, 2016). Deploying such advance technological systems in organizations breaks the barrier of communication, knowledge sharing and dissemination, this leads to learning and development of new ideas and knowledge which leads to improvement of SMEs performance.

Due to cultural and demographics difference in Pakistan mediation knowledge management is rejected, so, there is need more research on knowledge management and also should test it with another variable.

### **5.1.4 Hypothesis H4: Knowledge management mediates the relationship between project management practices and performance of SMEs**

Hypothesis 4 assumed that knowledge management doesnt mediate the linkage among project management practices and SMEs performance and the results of the hypothesis depict insignificant results as the upper and lower limit ( $-0.0429$ ,  $0.1122$ )



indicated by the unstandardized regression co-efficient are negative. There exist zero in the bootstrapped 95% interval indirect effect of the relationship of project management practices and SMEs performance through knowledge management. Therefore, the hypothesis is rejected.

Since this study only took one dimension of knowledge management for analysis, this serves as one of the reasons that it led to the rejection of hypothesis. It will work best when it is clubbed with knowledge management which means that when there will be strong organizational culture where employees follow set mechanisms, policies and procedures of the organization for creating innovative ideas, creating new knowledge and there are also well-established advanced information systems. Deploying advance technological systems in organizations breaks the barrier of communication, knowledge sharing and dissemination, this leads to learning and development of new ideas and knowledge which leads to improvement of organizational performance.

Prior these variables have been studied in organizations other than project based organizations therefore, the results also suggest that they must be studied by including the other dimensions of knowledge management in context of SMEs in Pakistan.

### **5.1.5 Hypothesis H5: Business environment moderate the relationship between project management practices and performance of SMEs**

The research also indicates the moderating impact of business environment between variables project management practices and SMEs performance in hypothesis H5 which show significant result. The analysis denoted that there is a positive impact of business environment between project management practices and performance of SMEs ( $= 0.1732$ ,  $t= 4.4502$ ,  $P= .0000$ ). Co-efficient comes out to be 0.1732 which shows that if there is a one unit change in business environment then it will bring an impact of 17% in the linkage between project management practices and SMEs performance. The bootstrapped results at 95% of the confidence

interval indicates that its upper and lower limit (0.0966, 0.2498) contains positive signs and exists no zero between upper limit and lower limit, which proves that as business environment becomes transparent, predictable and stable in an organization the relationship between PMP and SMEs performance becomes strong which leads to the acceptance of the H5 hypothesis that business environment moderates the relationship between PMP and SMEs performance.

## **5.2 Theoretical Implication**

This study has contributed in literature where the exploration of variables like business environment, organizational learning and business performance had been directed (Heisig, Suraj, Kianto, Kemboi, Arrau, & Easa, 2016). The current study has made specific contributions to the SMEs performance domain of project management practices. This is very significant contribution to literature since prior no such research outlining the effect of project management practices on SMEs performance has been conducted in Pakistani context. Study has brought together the significant aspects of business environment towards the past literature by analyzing its moderating role between project management practices and SMEs performance.

## **5.3 Practical Implication**

The findings of the study are practically relevant since the direct association between project management practices and SMEs performance is equally important for researchers and the practitioners. Furthermore, the findings of the study also illustrate the indirect importance of business environment and the direct impact on SMEs performance. The study provides information and makes recommendations to the project managers and the top management that in order to increase and improve performance of the projects, adoption and deployment of the best practices of project management should be made mandatory in the sports sector

in order to enhance productivity and exports. The environment for knowledge creation, sharing and dissemination should be encouraged and the manager should deploy and monitor the mechanisms that enable organizations to learn, change and adapt to account for the acquisition of new knowledge whereby paying emphasis on business environment.

Moreover, one of the components of knowledge management that is being studied suggested that it insignificantly mediates the relationship between project management practices and SMEs performance which recommends that though competence and capabilities of the knowledge management are very crucial for any kind of project, however, when an organization has competent and skillful knowledge, it should also have proper mechanisms and structures in place to educate its employees, because knowledge sharing and contribution together contribute significantly to improve SMEs performance. Knowledge management is measured at the most precious asset of an organization and the managers should be realize it more and pay emphasis on it as these define the potential future and long-term feasibility of the organization in context of performance and success.

## **5.4 Limitations of Research**

This study has certain limitations which happened mainly due to inadequate resources and time restraints. Medium size sample was selected due to time and cost constraints. Also, the study is directed only to the sports region of Pakistan and the results may not be generalized to different sector. Another limiting factor that questionnaire was supposed to be collected from middle level managers and employees. The contact with the relevant respondents was real challenge. Moreover, it was practically not possible to examine all the components of knowledge management hence only some components were selected for study. Additionally in PMP all practices were analyzed or tested individually, but as sample used only one practice out of four practices. As, it is determined after analysis that some results are not same as what was expected with respect to past studies and

literature, mainly due the highly power distance culture and people were not filling questionnaires by reading properly so this study might not be applicable in a non-Pakistani context.

## **5.5 Future Research Directions**

The study on project management practices and SMEs performance needs more attention of researchers, since the current study has been done with the focus on project of sports sector only, this actually gives a forward way to the researchers to observe and imitate the prototype in firms public and private both other than project based in sequence to study the effect with a huge sample size. Furthermore, knowledge sharing clubbed with other dimensions of knowledge management that is structural capital which provides the value of knowledge stocks and flows for project based organizational performance on the relationship between knowledge management and SMEs performance. The effects and significance have a look at can be useful for the future researchers focusing on this area to link project management practices to various other variables for instance innovation and creativity. As in this study understanding turned into tested as a mediating variable (less help from literature), researchers can investigate what other variables can in shape into the mediator and moderator relation.

## **5.6 Conclusion**

This study has created an attempt to assess the connection between project management practices and SMEs performance in sports sector of Pakistan. Data was composed from sports sector of Pakistan through a questionnaire survey to measure the extent to which project management practices impacts SMEs performance with mediating role of knowledge management and moderating role of business environment. Altogether 400 questionnaires were disseminated however, only 300 were used for analysis since these questionnaires were having the maximum appropriate and complete statistics required for carrying out the evaluation of this

research. Statistical checks indicate that validity and reliability of the model variables and fit of the model also are appropriate. The proposed hypothesis are also supported through Resource Based View theory. The results of the study are also in line with RBV theory which illustrates better project management practices. According to which interaction and communication between the individuals and the organizational units contributes to creation of new knowledge. The expansion of this sector is strongly related to transparency, balance and predictability of the commercial enterprise environment from a nation level. The enterprise environment affects the commercial enterprises operations and overall performance in general and SMEs, in particular, however the hypothesis that knowledge management mediates the relationship between PMP and SMEs performance in SMEs of Pakistan is not accepted which is possibly due to the fact the only one dimension was studied and also due to the cultural context. The research has given a clear observational impact of project management practices on SMEs performance with moderation of business environment in sports sector of Pakistan.

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# Appendix-A

## Research-Questionnaire

Dear respondent,

I am a student of MS Project Management Capital University of Sciences and Technology, Islamabad. I am conducting a research on the topic **Impact of Project Management Practices on Performance of Small and Medium Enterprises with the mediating role of Knowledge Management and moderating role of Business Environment**. You can help me by submitting your responses against every question of the questionnaire. I appreciate your participation in my study and I assure that your responses will be held confidential and anonymity will be maintained; also will only be used for education purposes.

Regards

**Khawar Zafar**

MS Scholar

Capital University of Sciences and Technology, Islamabad

Please provide following information:

	1	2
<b>Gender</b>	Male	Female

	1	2	3	4	5
<b>Age</b>	18- 25	26-35	36-45	46-50	Above 50

	1	2	3	4	5
<b>Qualification</b>	Matric	Inter	Bachelor	Masters/M.phil	Phd

	1	2	3	4	5
<b>Experience</b>	0 – 1	2 – 5	6 – 10	10 – 15	Above 15

<b>1=Strongly Agree</b>	<b>2=Agree</b>	<b>3= Neutral</b>	<b>4= Disagree,</b>	<b>5= Strongly Disagree</b>
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### Performance of SMEs

Performance of Small and Medium Enterprises Questionnaires are adopted from Atalaya, Anafarta, and Sarvanc (2013).

1	Our company launches new products.	1	2	3	4	5
2	Our company extends numbers of product lines.	1	2	3	4	5
3	With NPD (new product development), our company enlarges new markets.	1	2	3	4	5
4	Our company launches customized products according to market demands.	1	2	3	4	5
5	Our company adopts advanced process real-time control technology.	1	2	3	4	5
6	Our company imports advanced automatic quality restriction equipment/software.	1	2	3	4	5

7	Our company imports advanced programmable equipment.	1	2	3	4	5
8	Our company adopts innovative reward systems.	1	2	3	4	5
9	Our company adopts innovative work designs.	1	2	3	4	5
10	Our company adopts innovative administration aiming at NPD.	1	2	3	4	5
11	Our company engages in organizational reconstruction for pursuing operational efficiency.	1	2	3	4	5
12	Our company engages in business process re-engineering.	1	2	3	4	5
13	Our company leads innovative distributing methods to markets.	1	2	3	4	5
14	Our company leads innovative promoting methods to markets.	1	2	3	4	5
15	Our company continually enlarges potential demand markets.	1	2	3	4	5

### **Project Management Practices**

Project Management Practices Questionnaires are adopted from Ollows (2012).

### **Project Scope**

1	Project authorization confirmed with higher authority.	1	2	3	4	5
2	Identifying project objectives, deliverables, constraints and principal work activities.	1	2	3	4	5
3	Establishing designated measurable project benefits and outcomes to enable quantified evaluation of project performance.	1	2	3	4	5
4	Developing scope management plans and implementing them to ensure clarity of understanding and ongoing management of project scope.	1	2	3	4	5
5	Managing the impact of scope change within established time, cost and quality constraints to meet project	1	2	3	4	5

	objectives.					
6	Reviewing progress and the results recorded to assess the effectiveness of scope management procedures.	1	2	3	4	5
7	Ensuring scope management issues and recommended improvements are identified, documented and passed on to higher project authority application in future projects.	1	2	3	4	5

### Cost Management

8	Determining resource requirements for individual tasks to provide a basis for attributing expenditure.	1	2	3	4	5
9	Ensuring project costs are estimated to enable budgets to be developed and agreed cost management processes implemented at an appropriate level throughout the project life cycle.	1	2	3	4	5
10	Ensuring cost management plans are developed and implemented to ensure clarity of understanding and ongoing management of project finances.	1	2	3	4	5
11	Implementing agreed financial management procedures and processes to monitor actual expenditure and to control costs.	1	2	3	4	5
12	Selecting cost analysis methods and tools to identify cost variations, evaluate options and recommend actions to higher project authority.	1	2	3	4	5
13	Implementing agreed actions, monitoring and modifying them, to maintain financial and overall project objectives, throughout the project life cycle.	1	2	3	4	5
14	Conducting activities to signify financial completion.	1	2	3	4	5
15	Reviewing project outcomes to determine the effectiveness of cost management processes and procedures.	1	2	3	4	5

16	Ensuring cost management issues and recommended improvements are identified, documented and passed on to higher project authority for application in future projects.	1	2	3	4	5
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### Communication Management

17	Identifying Information requirements and ensure they are documented and analyzed as the basis for communications planning.	1	2	3	4	5
18	Implementing the designated project management information system, structure and procedures to ensure the quality, validity, timeliness and integrity of information and communication.	1	2	3	4	5
19	Managing the generation, gathering, storage, retrieval, analysis and dissemination of information by project staff and stakeholders within established systems and procedures to aid decision making processes throughout the project life cycle.	1	2	3	4	5
20	Ensuring designated information validation processes are monitored and controlled, and agreed modifications implemented to optimize quality and accuracy of data.	1	2	3	4	5
21	Implementing processes to promote continuous improvement of staff and overall project effectiveness.	1	2	3	4	5
22	Maintaining customer relationships within established guidelines to ensure clarity of understanding of objectives and to reduce conflict throughout the project life cycle.	1	2	3	4	5
23	Ensuring finalization activities are conducted to ascertain agreed ownership of and responsibility for information.	1	2	3	4	5
24	Ensuring project outcomes are reviewed to determine the effectiveness of management information and	1	2	3	4	5

	communications processes and procedures.						
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### Risk Management

25	Identifying potential, perceived and actual risk events as the basis for risk management planning.	1	2	3	4	5
26	Using established risk management techniques and tools to analyze risk events, assess options and recommend preferred risk approaches.	1	2	3	4	5
27	Developing plans agreed with stakeholders and communicating to ensure clarity of understanding and ongoing management of risk factors.	1	2	3	4	5
28	Ensuring the project is managed in accordance with established project and risk management plans.	1	2	3	4	5
29	Monitoring progress against project plans to identify variances and recommend responses to higher project authority for remedial action.	1	2	3	4	5
30	Ensuring agreed risk responses are implemented and plans modified to reflect changing project objectives in an environment of uncertainty.	1	2	3	4	5
31	Ensuring project outcomes are reviewed to determine effectiveness of risk management processes and procedures.	1	2	3	4	5
32	Ensuring risk issues and recommended improvements are identified and documented.	1	2	3	4	5

### Knowledge Management

Knowledge Management Questionnaires are adopted from Kearns and Sabherwal, 2014.

1	Knowledge and intellectual capital are viewed as key organizational assets.	1	2	3	4	5
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2	We invest heavily in the capture, assimilation, and dissemination of knowledge.	1	2	3	4	5
3	We have ready access to expert knowledge within the organization.	1	2	3	4	5
4	Organizational knowledge is codied and made available to all workers.	1	2	3	4	5
5	We have processes for identifying and exploiting our knowledge stocks.	1	2	3	4	5

### Business Environment

Questionnaires of variable Business Environment are adopted from Thong and Yap (1995).

1	It is very easy for the customer to switch a competitor in this industry.	1	2	3	4	5
2	The rivalry among companies in the industry my company is operating in is very intense.	1	2	3	4	5
3	There are many products/services in the market which are different from ours but perform the same functions.	1	2	3	4	5
4	My company is dependent on up-to-date information.	1	2	3	4	5
5	It is very important for my company to have access to reliable, relevant and accurate information.	1	2	3	4	5
6	It is very important for my company to access information fast whenever we need the information.	1	2	3	4	5