

**THE RELATIONSHIP BETWEEN LEADER EMOTIONAL
INTELLIGENCE, TEAM CULTURE AND TEAM
PERFORMANCE OF HEALTHCARE INSTITUTIONS IN
PAKISTAN**

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**FACULTY OF BUSINESS & ACCOUNTANCY
UNIVERSITY OF MALAYA
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EMOTIONAL INTELLIGENCE, TEAM CULTURE AND
TEAM PERFORMANCE OF HEALTHCARE
INSTITUTIONS IN PAKISTAN**

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**THESIS SUBMITTED IN FULFILMENT OF THE
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**THE RELATIONSHIP BETWEEN LEADER EMOTIONAL INTELLIGENCE,
TEAM CULTURE AND TEAM PERFORMANCE OF HEALTHCARE
INSTITUTIONS IN PAKISTAN**

ABSTRACT

The team working in healthcare is figured as a mandatory approach to organizing service delivery and to provide error-free patient care in modern context. Globally, a variety of managerial and clinical teams are found in healthcare setups and among such clinical teams, interdisciplinary teams are the most developed. Therefore, considerable attention is given to the performance of interdisciplinary teams, and studies have linked team performance to satisfactory patient services in healthcare organizations worldwide. Healthcare teams are often ineffective with research showing that 70% of medical errors can be attributed to poor teamwork. Considering the effective team functioning, leader's non-cognitive abilities and the role of culture remain a central concern of healthcare teams. Therefore, this study seeks to investigate how leader's emotional intelligence in a prevailing team culture can foster the sharing of knowledge and enhance team emotional intelligence that impacts team performance. The purpose of this research is to consolidate the most robust findings by investigating constructs that influence team performance in private healthcare hospitals of Pakistan where a handful of research was found concerning leader's emotional intelligence, team culture, and team performance. In order to test the hypotheses; this study employed quantitative approach following the assumptions of positivist paradigm. A survey questionnaire consisting of 67 items reflecting the proposed research constructs were developed for the purpose of primary data collection. By employing cross-sectional study, the data was collected from 195 teams comprised of 735 respondents from 9 private hospitals of Pakistan. For data analysis; study utilized a partial least squares – structural equation modeling approach to validate and confirm the research

model by testing the hypothesized relationships. The findings of the study provide empirical evidence of relationships amongst leader emotional intelligence and team culture on team performance. The study findings indicated that leader emotional intelligence has a significant positive relationship with team performance, team emotional intelligence and knowledge sharing. In addition, team culture has a significant positive relationship with team emotional intelligence and knowledge sharing but its relationship with team performance was found to be insignificant. Furthermore, the mediating relationships reveal that the team emotional intelligence and knowledge sharing mediate the relationship between team culture and team performance. By integrating theoretical model, this study contributes to progressing the understanding of leader's emotional intelligence and team culture in knowledge sharing and enhancing team emotional intelligence. In practice, the study provides valuable inputs for healthcare teams confronting with high work demands where leaders emotional intelligence can create support by understanding emotions of the team and can create a pool of knowledge by sharing with other healthcare professionals. In the end, study implications, limitations, and future research opportunities are emphasized.

Keywords: Team Performance, Emotional Intelligence, Team culture, Knowledge sharing

**PERHUBUNGAN ANTARA KECERDASAN EMOSI, BUDAYA PASUKAN
DAN PRESTASI PASUKAN DI INSTITUSI-INSTITUSI PENJAGAAN
KESIHATAN PAKISTAN**

ABSTRAK

Budaya kerjasama berpasukan dalam penjagaan kesihatan dilihat sebagai pendekatan mandatori bagi mengatur penyampaian perkhidmatan dan menyediakan penjagaan pesakit tanpa ralat dalam konteks moden. Pelbagai jenis pasukan pengurusan dan klinikal ditemui dalam persekitaran penjagaan kesihatan di serata dunia dan di antaranya, pasukan-pasukan interdisiplin merupakan yang paling maju. Lantaran itu, banyak perhatian telah ditumpukan kepada prestasi pasukan-pasukan interdisiplin, dan kajian-kajian telah mengaitkan prestasi kumpulan dengan tahap kepuasan perkhidmatan pesakit dalam organisasi penjagaan kesihatan serata dunia. Pasukan-pasukan kesihatan kebiasannya kurang berkesan dan kajian juga menunjukkan 70% daripada ralat-ralat perubatan boleh dikaitkan dengan daya kerja berpasukan yang lemah. Dengan mengambil kira fungsi kumpulan yang berkesan, keupayaan tak kognitif pemimpinnya dan peranan budaya menjadi perkara utama yang diambil berat oleh pasukan-pasukan penjagaan kesihatan. Maka, kajian ini bertujuan untuk menyelidik peranan kecerdasan emosi pemimpin dalam budaya pasukan yang sedia ada dapat memupuk perkongsian pengetahuan dan meningkatkan kecerdasan emosi pasukan yang memberi kesan kepada prestasinya. Tujuan kajian ini adalah untuk mencantumkan penemuan-penemuan yang termantap dengan menyelidik gagasan-gagasan yang mempengaruhi prestasi pasukan dalam penjagaan kesihatan di hospital-hospital swasta Pakistan di mana sejumlah penyelidikan ditemui mengenai kecerdasan emosi pemimpin, budaya pasukan dan prestasi pasukan. Demi menguji hipotesis-hipotesis ini, kajian ini menggunakan pendekatan kuantitatif mengikut andaian-andaian paradigma positivis. Soal selidik tinjauan terdiri daripada 67 butiran yang mencerminkan gagasan-gagasan kajian yang

diusulkan — telah dibentuk bagi tujuan pengumpulan data primer. Dengan menggunakan penyelidikan keratan rentas, data telah dikumpulkan daripada 195 pasukan yang mengandungi 735 responden daripada 9 hospital swasta Pakistan. Untuk analisis data, kajian ini menggunakan pendekatan kuasa dua terkecil separa – pemodelan persamaan struktur (PLS – SEM) demi mengesah dan memastikan model kajian dengan menguji perhubungan-perhubungan telah dihipotesis. Dapatan kajian ini menyediakan bukti empirik tentang perhubungan antara kecerdasan emosi pemimpin dan budaya pasukan dengan prestasi pasukan. Dapatan kajian menunjukkan bahawa kecerdasan emosi pemimpin mempunyai perhubungan positif yang ketara dengan prestasi pasukan, kecerdasan emosi pasukan dan perkongsian pengetahuan. Tambahan lagi, budaya pasukan juga mempunyai perhubungan positif yang ketara dengan kecerdasan emosi pasukan dan perkongsian pengetahuan, namun, perhubungannya dengan prestasi pasukan didapati tidak ketara. Selanjutnya, perhubungan-perhubungan perantara tersebut mendedahkan bahawa kecerdasan emosi pasukan dan perkongsian pengetahuan menjadi pengantara perhubungan antara budaya pasukan dan prestasi pasukan. Dengan menyepadukan model teori, kajian ini menyumbang kepada memajukan kefahaman tentang kecerdasan emosi pemimpin dan budaya pasukan dalam perkongsian maklumat dan meningkatkan kecerdasan emosi pasukan. Dalam amalan, kajian ini menyediakan input-input yang bernilai bagi pasukan penjagaan kesihatan yang berhadapan dengan tuntutan kerja yang tinggi, di mana, kecerdasan emosi pemimpin boleh membina sokongan dengan cara memahami emosi pasukan dan mencipta satu himpunan pengetahuan dengan cara berkongsi dengan ahli-ahli penjagaan kesihatan profesional yang lain. Akhir sekali, implikasi kajian, batasan-batasan dan peluang kajian pada masa hadapan adalah ditekankan.

Katakunci: Kecerdasan Emosi, Perkongsian Pengetahuan, Prestasi Pasukan, Pasukan
Kebudayaan

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LIST OF SYMBOLS AND ABBREVIATIONS

CFA	:	Confirmatory Factor Analysis
CR		Composite Reliability
EI	:	Emotional Intelligence
EIT		Emotional Intelligence Theory
GoF	:	Goodness of fit
KS	:	Knowledge Sharing
LEI	:	Leaders Emotional Intelligence
PLS	:	Partial Least Square
SEM	:	Structural Equation Modeling
SET		Social Exchange Theory
SPSS	:	Statistical Package for Social Sciences
TC		Team Culture
Team EI	:	Team Emotional Intelligence
TP	:	Team Performance
WHO	:	World Health Organization

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CHAPTER 1: INTRODUCTION

1.1 Introduction

This chapter comprises of nine main sections beginning with the background and overview of the study. The first section starts with the background followed by the second section articulating the context of the study. The third section of the study laid out the comprehensive problem statement followed by the research significance described in the fourth section. The section five and section six of the chapter comes up with research questions and research objectives respectively. The section seven of the chapter articulates the theoretical underpinnings used for the current study tracked by section eight which comprised of operational definitions for the study. Lastly, the section nine of the chapter briefly discussed the organization of the whole study with a brief description of each chapter.

1.2 Background of the Study

The emergence of team-based working in the healthcare sector has led management scholars and researchers to explore the specific attitudes and behaviors that contribute to optimum team performance. As the healthcare services via team approach is continuous to be evolved as a mechanism for the exchange of knowledge among diversified medical specialties under dynamic leadership throughout the twenty-first century.

The healthcare teams for superior patient care services must learn to adopt new technologies and provide innovative team-based solutions for a quality performance. For meeting such requirements the members of the teams are required to collaborate and interdependent in healthcare organizations (e.g. Almost et al., 2016; Heinemann & Zeiss, 2002). Healthcare teams as most of the times are facing challenges of cognitive, behavioral and leadership issues which has ultimate influence on team performance (Siddiq, Baloch, & Takrim, 2016). Such issues are related to team failures as the

consequences of these factors leads to misinterpretation of visual and non-visual expressions which may be a barrier to team performance. Similarly, the interpersonal problems are of the prime concerns for the healthcare teams and leadership (Samiuddin, Ahmad, & Kazmi, 2017). A team performance is explained by the model of team performance presented by Heinemann and Zeiss (2002). This model enunciates that team performance is the end product of the component which includes team structure, team context, the team processes and the productivity of a team as a collective unit. Hence the team performance is dependent on various inputs factors like leadership, culture, knowledge, and supportive behaviors of team members.

In the jurisdiction of healthcare leadership and management practices, the term “emotional intelligence” is frequently marked down as a cure for challenging interpersonal problems (Samiuddin et al., 2017). The non-cognitive skill of emotional intelligence holds a shaky relationship to unsurprising results in the workplace. However, at the same time, emotional intelligence is an exhilarating phenomenon which at face value seems to hold a great deal of prominence when it comes to practicing leadership, for accelerating the individual, team and ultimately the organizational effectiveness.

Numerous studies have been conducted specifying the role of emotional intelligence in individual performance outcomes while the role of leader emotional intelligence and team emotional intelligence and its impact on team performance has been understated. The scholarly work by Lee, Choi, and Kim (2017) postulates that team members with higher status might disrupt or underestimate the perceptions of other team members which may lead to the conflict in teams. Such negatively charged emotions influence team creativity and performance. Therefore the ability of emotional intelligence for leaders and team members enable them to understand the emotions and suppress such conflicts for the positive team outcomes. Thus, this study introduced readers to the concepts of

emotional intelligence for leaders and teams in relation to the constructs of team culture and knowledge sharing for the ultimate team performance.

In the parlance of knowledge management, knowledge sharing is systematic and planned activity involving certain members with diversified or sometimes like-minded members who share their knowledge resources to achieve specified objectives (Abidi, 2007). Though Knowledge sharing in healthcare is rich but is largely underutilized due to certain operational barriers and is utilized specifically for the patient care services (Ryu, Ho, & Han, 2003). The significance of knowledge sharing in healthcare teams has led management scholars and researchers to consider contextual, leadership and operational factors that boost team performance via exchange of knowledge. This study attempts to verify the mediating role of knowledge sharing in light of two team related streams; leader and team culture. Such factors stimulate the knowledge sharing behavior among team members for optimizing team performance. A variety of leaders ability has been studied amongst which leaders emotional intelligence is found to improve knowledge sharing amongst team members (e.g. Fullan, 2014; Liu & Liu, 2013). Moreover, team culture frames the individual perceptions and attitudes of members of teams. As team culture has widely been noted as one of the influential source affecting team member behaviors in the team environment (Xue, Bradley, & Liang, 2011).

The unique concept of emotional intelligence (EI) has charmed the scholarly consideration because of extensive troubles and wretchedness beheld by workers. Emotional Intelligence has been prominent phenomena for a practical and evidence-based research (e.g. Azouzi & Jarboui, 2013; Nabih, Metwally, & Nawar, 2016; Linden et al., 2017; Wong & Law, 2002). The curiosities of emotional intelligence have revealed that EI is one of the significant predictors of quality services specifically in the services sector

(Goleman, Boyatzis, & McKee, 2013; Khalil, 2008) and insufficiency of emotional intelligence may lead to the psychological stress at the job (Rahim, 2010).

Previous studies (e.g. Dickson, Smith, Grojean, & Ehrhart, 2001; Holman, Porter, Pawlina, Juskewitch, & Lachman, 2016; Linden et al., 2017) argued that emotional intelligence is one of the predictors to determine efficient performance. The connection between team emotional intelligence and team performance can be clarified through "A Model of Team Effectiveness" proposed by Druskat and Wolff (2001b). As indicated in "Model of Team Effectiveness"; workers should hold three principal characteristics keeping in mind the end goal to be effective as a team. These characteristics incorporate trust among individuals of teams, identity as a team, and team efficacy. At the core of these three conditions lie emotions. These clarified conditions ascend in situations where emotions are well administered. Subsequently, teams get an advantage by building the more elevated amount of EI (Druskat & Wolff, 2001b). The emotional intelligence of leaders can enhance team performance by exercising the assigned authority (e.g. Mshellia, Malachy, Sabo, & Abu-Abdissamad, 2016; Neil, Wagstaff, Weller, & Lewis, 2016). As emotionally intelligent leaders are prompt in building values and norms among team colleagues. The developed norms are basically the emotional skills of the team members which leads to augmented performance in teams.

Though the antecedents of team level emotional intelligence have nominal research in relevance to how team culture influences the development of emotional competencies of team members. The culture enables individuals to manage emotional necessities that can be seen through various norms, beliefs, and standards of interaction. In fact, researchers agree that culture manages emotion: the norms established via culture allow individuals to familiarize, appraise and convey emotions within them as well as amongst their colleagues (Barczak, Lassk, & Mulki, 2010). In spite of the fact that positive association

between leader emotional intelligence and team performance has caught attention among research analysts and professionals minimal observational consideration has been given to support such affirmations. Furthermore, management researcher (e.g. Koman & Wolff, 2008; Stubbs, 2005) inspected the mediating role of group-level EI on the connection between leader EI and team performance in military groups and recommended to study the impact of culture on the advancement of non-cognitive abilities like the emotional intelligence of the members working in teams. These scholars clarified and investigated the influence of leader EI on team emotional intelligence and team performance and highlighted to explore the impact of team culture in future research studies. Thus, Koman and Wolff (2008) appears to have suggested studying culture and this study identifies emotional intelligence as a critical teamwork proficiency for healthcare staff; as the most significant of all, in terms of final outcomes and effectiveness criteria, are the medical and nursing teams (Shetach & Marcus, 2015) along with the other research constructs of the study. The followings section explains the overview of the health sector of Pakistan.

1.2.1 Overview of Health Sector of Pakistan

Globally, the health sector has gained considerable importance and rapid growth among all the other service organizations (Babakus & Mangold, 1992) as modern healthcare is delivered by teams rather than individuals and requires the cooperation of healthcare professionals from multiple disciplines (Thylefors & Persson, 2014; Weller, Boyd, & Cumin, 2014). The healthcare reforms in Pakistan continues to strengthen keeping in view the increasing demand for quality and error-free patient care. This continuous evolving of healthcare organizations demands the greater use of interdisciplinary healthcare teams. There is need to identify how individuals from diverse fields join forces to work professionally and provide cost-effective patient care. The study by Aslam, Mansoor, and Suleman (2014) states that the profession of medicine and allied health sciences is considered one of the most challenging occupations as it requests

physical and mental association of healthcare experts and technicians and this circumstance is even more critical in South Asian countries (like India, Pakistan, Sri Lanka and Bangladesh) as these countries are highly populated with scarce resources.

The statistics division of Pakistan (2014-2015) revealed that the estimated population of Pakistan is 196.2 million with a growth rate of 1.49%. Hence Pakistan is declared as a sixth largest populated country in the world. Being highly populated country health sector is one of major service sectors in Pakistan and the professions associated with healthcare are considered amongst the leading occupations of the nation which is evident from the fact that approximately 10000 students are graduated in relation to healthcare services each year from all 5 provinces (Aslam et al., 2014). In Pakistan, no research was found in medical sector regarding leader's emotional intelligence and team culture in relation to employee performance (Affandi & Raza, 2013).

World Health Organization (WHO) ranked Pakistan 122nd in overall health system performance among 191 countries (Ansari, Ansari, & Ansari, 2015) as Pakistan spent only 0.8% of GDP on healthcare infrastructure. Such low percentage of GDP spending on healthcare systems is much lesser than the neighboring countries; like Bangladesh spent 1.2% and Sri Lanka spent 1.4% respectively (Ansari et al., 2015). Pakistan ranks amongst the countries with the worst health indicators as total expenditure on health as a percentage of the GDP remains amongst the lowest in the world: that is below 2% as compared to 5-14% in developed countries (Punjani, Shams, & Bhanji, 2014). The data in Table 1.1 presents the overall distribution of healthcare staff in Pakistan.

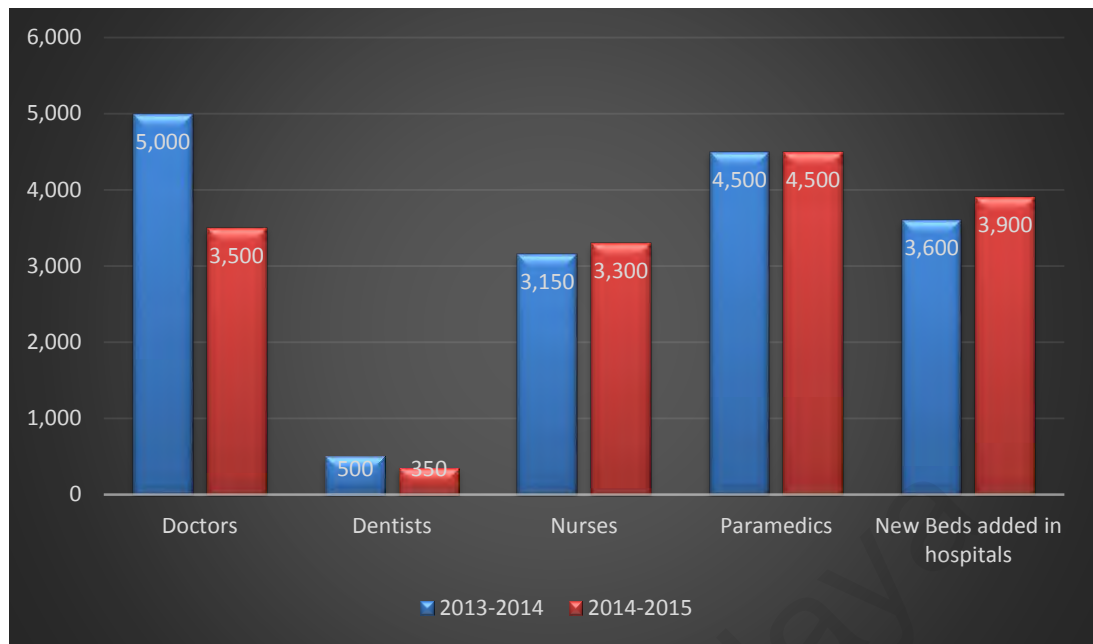
Table 1.1: Healthcare Statistics of Pakistan

Statistics	year 2013-2014	Year 2014-2015
No. of Hospitals	1113	1142
Registered doctors	167759	175223
Registered dentists	13716	15106
Registered Nurses	86183	90276
No. of beds	118041	118378
Population per doctor	1099	1073
Population per dentist	13441	12447
Population per bed	1557	1593

Source: Ministry of Health Economic Survey of Pakistan 2014-15

1.2.2 Yearly added Infrastructure

According to the health department (2009) and study by Nishtar et al. (2013), the health sector in Pakistan is under considerable constraints of resource scarcity, structural disintegration, insensitivity towards gender, disorganization, and absence of useful specificity and openness. The effectiveness of health sector will surely influence the general health of residents of Pakistan. Like other sectors and organizations, the effectiveness of health care reforms merely depends upon their leadership and its impact on employees to achieve excellence in providing healthcare services. Figure 1.1 indicates the yearly added infrastructure. In response to the fact that the research is silent in areas of healthcare teams working with limited resources as Pakistan is developing countries; this research is formulated to optimize healthcare team's performance.



Source: Source: Ministry of Health Economic Survey of Pakistan 2014-15

Figure 1-1: Yearly added Infra- Structure

1.3 Problem Statement

Working together is more productive than working as individuals. This philosophy is based on a fundamental premise of collaboration in the work (Liu, Keller, & Shih, 2011) hence the team effectiveness is one of the factors for the success of the entire organization (Druskat & Wolff, 2001b). Previous studies show that staff working in teams report fewer errors, incidents, and injuries, and have lower staff turnover (West, Lyubovnikova, Eckert, & Denis, 2014) and health sector of Pakistan is not exceptional to this.

Nowadays, team-based health care is a mandatory approach and is no longer an innovation or even an option because of complexities of health problems. To treat complex health problems service providers are using the team-based approach with the specialized health professionals to deliver quality healthcare. Therefore, teamwork is now an essential part of effective healthcare delivery, regardless of whether health professionals assigned to designated teams, because of the increasing complexity of healthcare delivery (Lemieux-Charles & McGuire, 2006; Levy, 2004; Lewin & Reeves,

2011; Schmitt, 2001). Despite growing awareness of its potential benefits, effective teamwork is often lacking in healthcare organizations, with negative consequences for patients (Levy, 2004). Healthcare sector is facing challenges attributed to the leadership abilities within teams. Shortcomings exist in hospitals due to interpersonal behavior, delivering strategies and ineffective leadership practices (Siddiq et al., 2016).

Research revealed that 70% of the medical errors in healthcare teams can be attributed to the ineffective team working (Thomas, Lipsitz, Studdert, & Brennan, 2002). The provision of efficient medical services heavily relies upon the vigilant coordinated effort and exchange of data between different people, workers, work gatherings, multidisciplinary groups, inter-disciplinary teams and allied healthcare organizations. Subsequently, it is imperative to think about why effective working in teams are so essential and how team effectiveness can be enhanced to guarantee high caliber and safe patient care. The culture and leader behavior may ensure availability of staff and provision of error-free health care to the population which has become one of the most important issues in the early part of the twenty-first century.

The crucial role of emotional intelligence has been widely recognized in the case of staff working in health-care (Kooker, Shoultz, & Codier, 2007). Emotional Intelligence has been linked to improved workplace behavior and specifically team behavior and team performance (Jordan & Lawrence, 2009). The lack of emotional intelligence competencies at leadership as well as team level may arise uncertainty among teams and can be a hurdle to take decisions timely. The challenges of organizing health care in the modern context are considerable due to continual improvements in medical technologies, a greater level of knowledge and awareness amongst patient populations. Private hospitals have to cope-up with latest technological trends within limited resources. The increasing competitive pressures from an increasing number of similar institutions throughout the

country has brought the challenge of the rising cost in different domains. Cost effective and error-free service quality exerts pressure on institutions to improve efficiency and effectiveness.

In healthcare institutions of Pakistan recently some negative trends are being seen like quitting the profession, serving in some other country (brain drain), low job & team performance (Aslam et al., 2014). Further study by Momanyi and Kaimenyi (2015) reported that leaders did not listen to staff problems and or queries, this sort of relationship contributed to the staff dissatisfaction at work. Moreover due to poor communication among healthcare teams in Pakistan ultimately impacts the delivery of coordinated quality of care to patients. The study by Khowaja, Merchant, and Hirani (2005) reveals that international medical staff turnover rate at the private hospitals was estimated to be 15% whereas turnover of staff at private hospitals in Pakistan has remained above 30%. In another study, it has been revealed by Khaliq, Zia-ur-Rehman, and Rashid (2011) that the average turnover at a private hospital is approximately 25-30% per year. Numerous factors such as Team culture matters in restraining the staff turnover because it can affect performance as well as the relationship among the members at the workplace. A conducive team culture enables team members to understand their team members' emotions and provide a platform for sharing knowledge.

The knowledge sharing can improve the provision of quality services and innovation ability of healthcare teams. As innovation in healthcare continues to be a driving force in the pursuit of excellence in healthcare services. The Pakistani healthcare teams realized the importance of sharing knowledge but the implementation of such practices is confronting with cultural and leadership barriers (Arshad, Noordin, & Othman, 2016). Though the availability of state-of-the-art private hospitals scattered across the country yet facing challenges of effective knowledge sharing behavior. In healthcare institution;

knowledge is mostly a blend of tacit and explicit knowledge resources which is not dependent on the structured resources but is highly influenced by the worker's perceptions and experiences for utilizing it for innovation (Hameed, Karamat, & Mehmood, 2012). Therefore factor of culture stimulates members to share the knowledge and use it instinctively (Rahman, 2011). The scholarly work by Arshad et al. (2016) highlighted that the Pakistani healthcare teams realized the importance of sharing knowledge but the implementation of such practices is confronting with cultural and leadership barriers. Therefore this study seeks to investigate how leader's emotional intelligence in a given team culture can foster the sharing of knowledge and enhance EI within their teams that impacts team performance.

1.4 Research Question

1.4.1 General Research Question

What is the relationship between leader emotional intelligence, team culture and team performance through mediating role of team emotional intelligence and knowledge sharing amongst medical & para-medical teams of healthcare institutions in Pakistan?

1.4.2 Specific Research questions

- 1.4.2.1** What is the relationship between leader emotional intelligence and team performance?
- 1.4.2.2** Does team emotional intelligence mediate the relationship between leader emotional intelligence and team performance?
- 1.4.2.3** Does Knowledge sharing mediate the relationship between leader emotional intelligence and team performance?
- 1.4.2.4** What is the relationship between team culture and team performance?
- 1.4.2.5** Does team culture influence the development of team emotional intelligence and hence impact team performance?
- 1.4.2.6** Does knowledge sharing mediate the relationship between team culture and team performance?

1.5 Objectives

1.5.1 General Objective

The objective of this research study was to explore the relationships amongst emotional intelligence, team culture, and knowledge sharing and team performance in healthcare institutions of Pakistan. The study aims to develop effective team performance criteria that healthcare organizations can adapt to provide quality services.

1.5.2 Specific Objectives

- 1.5.2.1** To examine the relationship between leader emotional intelligence and team performance.
- 1.5.2.2** To analyze the influence of team emotional intelligence at the group level and its overall impact on team performance.
- 1.5.2.3** To evaluate the role of knowledge sharing in teams team emotional intelligence and its overall impact on team performance.
- 1.5.2.4** To assess the relationship between team culture and team performance.
- 1.5.2.5** To investigate the extent of team culture in the development of emotional intelligence skill at the group level and its relationship with team performance.
- 1.5.2.6** To examine if team emotional intelligence and knowledge sharing have mediating effect on the relationship between leader emotional intelligence and team performance.

1.6 Significance of the Study

The significance of the study is to produce a unique research model that is linked to existing research and further attempts to extend the literature on team performance, leader and team emotional Intelligence, knowledge sharing, and team culture. In a fast-paced environment and cut-throat business pressures, much focus has been given to the performance of employees working in teams. The team approach in healthcare has become a common approach to organize quality services. Current healthcare structure comprises of diverse managerial, clinical and interdisciplinary teams hence team performance is of vital importance for patient care and safety. Earlier reviews and investigations about working in teams demonstrate that – predictable with numerous other high-risk involved enterprises – medical services are also featured on a high level of significance in relation to team performance facets, such as way of communication and coordination in teams (Flin, Fletcher, McGeorge, Sutherland, & Patey, 2003; Manser,

2009; Silén-Lipponen, Turunen, & Tossavainen, 2002; Ummenhofer et al., 2001). The qualitative study by Silén-Lipponen et al. (2002) in context of operating room teams concluded that the leadership is one of the prominent factors which influence to ensure staff welfare as well as patient safety.

Further studies (e.g. Azouzi & Jarboui, 2013; Liu & Liu, 2013; Mshellia et al., 2016; Neil et al., 2016) endorsed the argument that emotional intelligence is one of the prime predictors of effective performance and leads towards the welfare of the staff as a unit. Therefore perceptions of the healthcare providers attribute emotional intelligence as one of the important attitudes of the staff working in healthcare (Kooker et al., 2007). Successful leaders require multiple skills and lenses to address existing issues in new perception, besides this leaders could be able to provoke ever-increasing challenges with diverse strategies and amicable responses. Hence this research provides significance in terms of the following:

Firstly this research intends to empirically test the relationships between a leader-member relationship in order to determine how team emotional intelligence and knowledge sharing mediate team performance of employees in the context of a given team culture. The leaders and managers in healthcare organizations have obligations to deal with several internal and external communities over a huge array of challenges and opportunities. Therefore, the team emotional intelligence of members provides them the capacity to understand their team members' emotions and encourages them to share task-relevant knowledge for optimum team outcomes.

Secondly, this research explores and identify the factors that predict team performance in the private healthcare setup. Considering what factors play an influential role to achieve positive outcomes for a team. The findings of the research will help healthcare institutions to identify important factors needed to retain staff and to provide error-free services.

Moreover, the study by Quoidbach and Hansenne (2009) reveals that very few studies have been conducted in health sector to date.

Thirdly the significance of this study is to advance understanding of how leader's emotional intelligence can foster the sharing of knowledge within their teams as leaders play a vital role in fostering team knowledge sharing and, which in turn boost team performance. To my knowledge, this study is one of the initial studies to look into whether team EI at the group level and knowledge sharing as an intervening variables influence the relationships amongst leader's emotional intelligence, team culture, and team performance. This study identifies emotional intelligence as a critical teamwork proficiency for healthcare staff; as the most significant of all, in terms of final outcomes and effectiveness criteria, are the medical and nursing teams (Shetach & Marcus, 2015).

Fourthly, persuasive team performance has been always eminent as a need for advanced medical services with enriched technologies, there is reserved information of what makes professionals of healthcare extraordinary team member, and even fewer resources available on the best way to create abilities for effective team working (Weller et al., 2014). Despite the fact that a huge number of studies have been directed on EI, there is tremendous arrangement of research that is either in advance or yet to be done as this research is in response to call for more research on the relationship between leader's emotional intelligence and team performance (Ghosh, Shuck, & Petrosko, 2012; Groves, McEnrue, & Shen, 2008; Jamali, Sidani, & Abu-Zaki, 2008; Wong & Law, 2002). These researchers featured that further research is required; so as to explore the potential connections between emotional intelligence of leaders and its influence on team performance.

Emotional Intelligence has widely attracted the attention of leading scholars who consider EI as a prerequisite for leadership effectiveness (Beigi & Shirmohammadi, 2010;

Holman et al., 2016). Hence this research draws on early research led on leader EI and team level tasks and shows how emotionally intelligent leaders assumes an imperative part of the advancement of compelling team members with additional variables. Koman and Wolff (2008) highlighted to study the influence of team culture in the development of emotional competencies at group level amongst team members. Also, it is of prime significance for Human Resources practitioners to comprehend the contested debate rotating around the point and the potential positive ramifications of a fruitful incorporation of EI at work (Neil et al., 2016; Rooy & Viswesvaran, 2004).

1.7 Theoretical Underpinnings of the Study

The theoretical underpinnings of the Social Exchange Theory and Emotional Intelligence Theory are integrated into the conceptual framework of this study as shown and explained in chapter two (literature review) and three (research model & hypotheses development). The relationships depicted in the framework are grounded in syllogisms of deduction among variables as explained in chapters two and three.

Management and organizational research scholars have been utilizing theoretical underpinnings of social exchange theory (Blau, 1964) and the reciprocal norms (Gouldner, 1960) to portray inspirations that drive attitudes and behaviors of the workers at workstations (Settoon, Bennett, & Liden, 1996). Social exchange theory assumes self-interested actors who transact with other self-interested actors to accomplish individual goals that they cannot achieve alone; self-interest and interdependence are central properties of social exchange (Lawler & Thye, 1999). This social exchange theory framework is often used for the understanding of human interaction (Homans, 1974). It is built on the premise that people interact with the expectation that each person will be provided with a resource that the other perceives as valuable. The leader and the team are both entities that exist within the context of the organization; as per the theory of social

exchange, subordinates will have more grounded responsibility and fulfilment; if their leader treats them with psychological rewards, for example, endorsement, regard, respect and affiliation (Wong & Law, 2002). Therefore, the emotionally intelligent behavior of leaders prompts increased leader-member adherent connections, which is imperative for administrative efficiency. The emotional intelligence of leaders additionally empowers the leaders to better comprehend negative attitudes and practices of workers. Given the significant effect of leader EI on subordinates, it ends up being a value-creating ability that should be even profoundly investigated and encourage altogether advanced among the team and organizational leaders. Further, this theory explains that employees exchange knowledge as they perceive that their knowledge sharing behavior has befitting outcomes. Therefore individuals with such perceptions in teams and organizations are likely to exchange their knowledge in a certain environment (Liang, Liu, & Wu, 2008). In fact, culture gives a social medium in which individuals can recognize and frame emotional bonds with each other (Beyer & Nino, 2001); which can fulfil their requirement for having a place to interact with each other (De Dreu & Weingart, 2003), sense of duty towards organization (Schein, 2010), confide trust in leaders, (Gardner, Fischer, & Hunt, 2009) and pose work satisfaction (Shiu & Yu, 2010).

1.8 Definition of key terms

1.8.1 Team

The team is made up of medical and health professionals from at least two different disciplines or professions, who share a common purpose and work together collaboratively and interdependently to serve a specific patient/client population and achieve the team's and the organization's goals and objectives (Heinemann & Zeiss, 2002). The scope used in this research consisted of groups of individuals who worked together toward a common output, thus referred to them as teams throughout the research.

1.8.2 Leader

The scope of a leader in this study is referred as an individual who formally appointed as team leader by the management; recognized by all team members as part of a team; who is responsible to supervise the team and facilitates team skills to accomplish the team objectives and inspires team members' behaviors which ultimately improves team performance (Heinemann & Zeiss, 2002).

1.9 Operational Definitions

For the purpose of clarity, the research employs the following operational definitions.

1.9.1 Leader Emotional Intelligence (Leader EI)

This study utilizes the conceptual definition of emotional intelligence for leaders given by Wong and Law (2002) based on the Salovey and Mayer (1990) defining Leaders EI as *“a set of interrelated abilities possessed by leaders to appraise self-emotions as well as subordinate emotions and to regulate them positively”*. The abilities revolve around the following four dimensions.

- Self-emotion appraisal (SEA).
- Another emotional appraisal (OEA)
- Regulation of emotion in self (REA)
- Use of emotion to facilitate performance (UOE)

1.9.2 Team Culture (TC)

Team culture is an important characteristic of successful teams as culture provides context for team members for understanding and developing emotional competencies that ultimately impact performance. According to Anderson and West (1998), this study defines team culture as *“Shared beliefs and necessary conditions which may influence shared climate for quality care in healthcare teams; which could be deployed for the effective team outcomes”*. These beliefs revolve around the four facets such as:

- Vision
- Participative safety
- Task orientation
- Support for Innovativeness

1.9.3 Team Emotional Intelligence (Team EI)

Jordan and Lawrence (2009) conceptualized Team EI as “*emotional intelligence abilities within team settings as distinguished by both focus of attention (own, others) and ability (Awareness, management)*”. A team must be mindful of the emotions of its members its own group emotions and the emotion of other group members. Team, emotional intelligence is one of the input characteristics which influences team performance by attending and managing emotions in following domains:

- Awareness of own emotions
- Awareness of other emotions
- Management of emotions
- Management of other emotions

1.9.4 Knowledge Sharing (KS)

Knowledge sharing is a social phenomenon and plays an important role in the successful outcomes in organizations. This study defines “*Knowledge sharing as individuals sharing team relevant information, exchange ideas, give suggestions and expert advice to their members in order to enhance team performance*” (Bartol & Srivastava, 2002). The knowledge sharing behavior reflects both explicit and tacit knowledge.

1.9.5 Team Performance (TP)

In this study, team effectiveness and turnover have been used as team outcomes for assessing performance based on the model developed by Stephen M. Shortell, Rousseau,

Gillies, Devers, and Simons (1991). They defined team performance as, “*multi-faceted concept which requires deliberate attention when it comes to conceptualizing team performance starting from team composition, team structure, team context and other interdependent input team characteristics. A team performance is perceived to be effective if it is capable of providing technical quality of care, judgments of the team’s ability to meet patient needs, and monitor turnover of staff within teams; these areas capture the perceptions of teams effective functioning*”.

1.10 Organization of the Study

The current research study is organized into six comprehensive chapters. Figure 1.2 presents the roadmap of the study and subsequently Figure 1.3 describes the chapter wise information elaborated into six chapters enunciating the whole study.

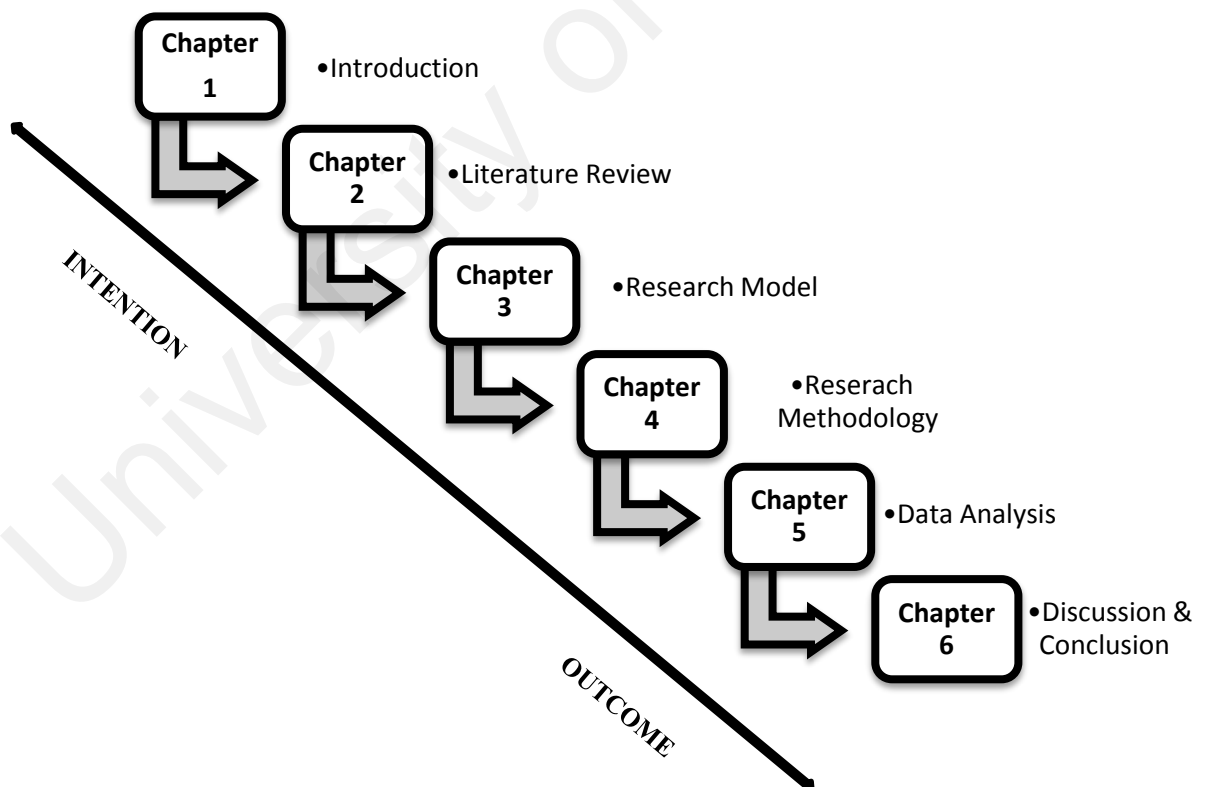


Figure 1-2: Roadmap of the Study

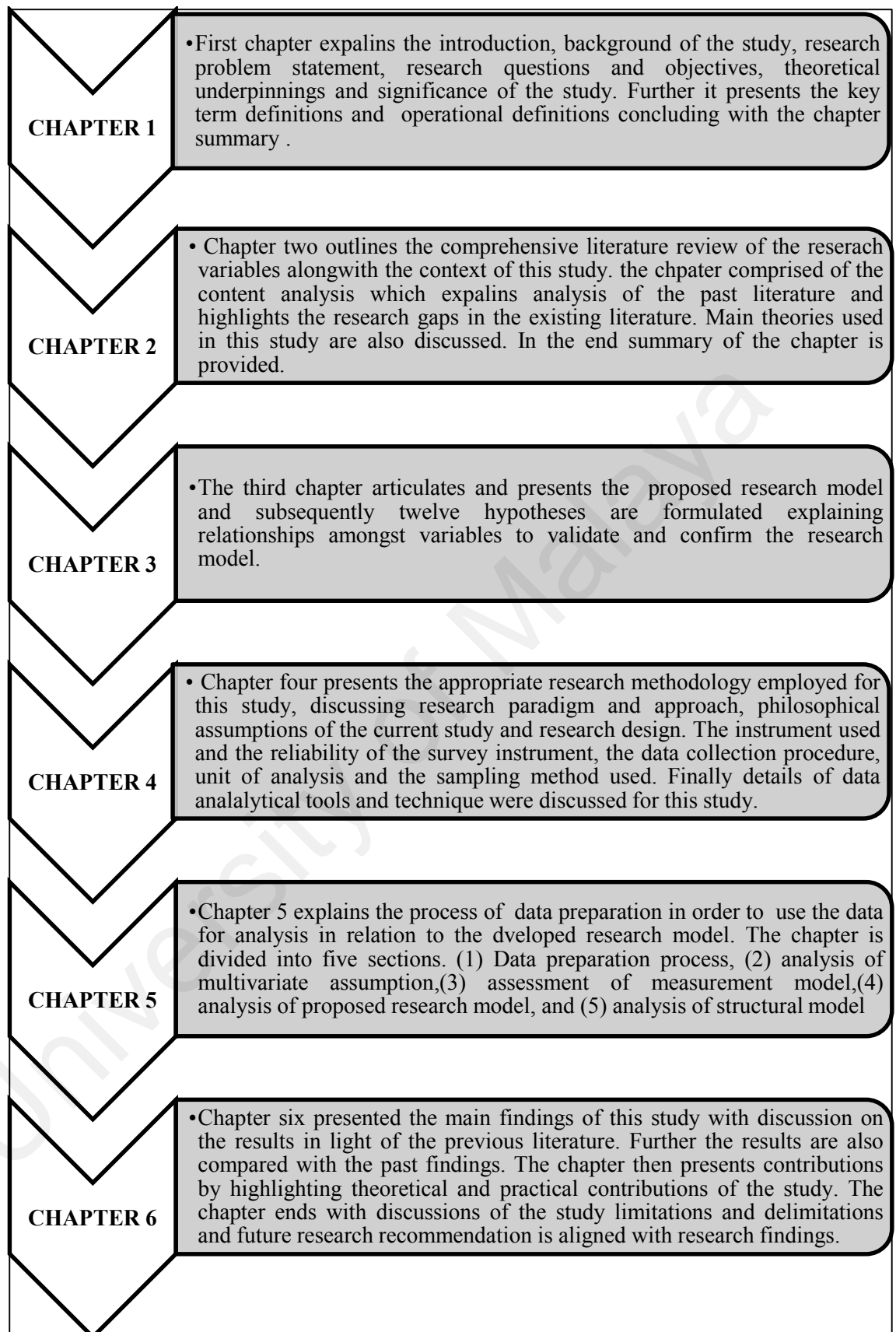


Figure 1-3: Chapter Wise Information

1.11 Chapter Summary

Chapter one is the comprehensive articulation of the study overview followed by the background of the research along with the introduction of Pakistani healthcare reforms. Based on the identified research gaps the chapter comes up with the section of research problem indicating the main theme of the research. Considering the research problem the research questions and objectives were described followed by the theoretical underpinnings integrated into the main research model as explained in the second and third chapter. The further chapter presented the important definitions of the key terms and operational definitions used in the study. Lastly, the chapter concluded with the brief sketch of six chapters portraying the main information conditioned in each chapter. Chapter 2 will now commence the discussion of the research literature and syllogisms of deduction, which continues into Chapter 3.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter presents the previous literature and described the researcher's critique related to the models and factors influences team performance, models of emotional intelligence and the conceptualization of emotional intelligence at the leader as well as a team level. Further, the chapter explains the concept of team culture and knowledge sharing behavior of workers working within teams which may lead to amplified team performance. Finally, the chapter concludes by discussing the theoretical underpinnings utilized to design the theoretical framework for the current research. Based on the literature review of the study constructs explained in the following sections the researcher comes up with the relationships amongst the variables which is discussed in chapter three.

2.2 Team working

During the initial decades of 20th century, more than 80% of enterprises rely on teamwork to complete their work. Later studies revealed that the trend of developing teams is extensively snowballing (Levi, 2015; Stubbs, 2005). Over the past decade, there has been prolific research literature on what makes the team effective. The opinion of Management Practitioners and research publications (e.g. Banker, Field, Schroeder, & Sintia, 1996; Drucker, 2003; Glassop, 2002; Hu & Judge, 2017; Kozlowski & Ilgen, 2006) accentuated the importance of high-quality teamwork in achieving success in today's economy. In particular, teamwork is considered a fundamental factor in order to implement good practice. For complex organizational problems; compared with individual employees the teamwork can lead to enhanced flexibility, greater innovativeness, and productivity and inclined to provide diversified solutions in a comprehensive way (Savelsbergh, Heijden, & Poell, 2010).

Part of the problem lies in the concept of team and working group and its differences. The team is designed as a group of workers that possess appropriate collaborative and personal attitudes (Tidhar, 1993). In broad-spectrum, team members incline to develop greater interdependence and stronger community awareness with other team members (Lumsden, Lumsden, & Wiethoff, 2009). The concept of team is referred as *"specific group of two or more people assigned to a specific role or function to dynamically, interdependently and adaptively perform a specific role of a common and valuable target/object/task"* (Salas, Dickinson, Converse, & Tannenbaum, 1992). Over the last few decades, researchers have made many definitions of teamwork (Hackman, 1987; Jon R Katzenbach & Smith, 1993; Levi, 2015; Robbins & Finley, 2000). Management scholars described teamwork as a fundamental feature of the team, and over the period they established communal attitudes and interactive patterns and shared these norms through different incidents or events (Woerkom & Croon, 2009).

Where the most researchers attempt to find out the difference between the group and a team. The team is different from the working group because the workgroup has no apparent performance requirements, no real interdependence and neither the concept of shared responsibility. Team is theorized as: *"a collection of individuals who are interdependent in their tasks, who share responsibility for outcomes, who see themselves and who are seen by others as an intact social entity embedded in one or more larger social systems and who manage their relationships across organizational boundaries"* (Koman & Wolff, 2008, p. 56). Whereas, according to Goyal and Akhilesh (2007, p. 208), the team is defined as: *"a small number of people with complementary skills who are committed to a common purpose, set of performance goals, and working approach for which they hold themselves mutually accountable"*.

Though, there are numerous definitions of the workgroup and team working as

prescribed earlier. The definition provided by Kozlowski and Ilgen's (2006) stated that the teamwork is comprised of *“(a) two or more individuals who (b) socially interact (face-to-face or, increasingly, virtually); (c) possess one or more common goals; (d) are brought together to perform organizationally relevant tasks; (e) exhibit interdependencies with respect to workflow, goals, and outcomes; (f) have different roles and responsibilities; and (g) are together embedded in an encompassing organizational system, with boundaries and linkages to the broader system, context and task environment”* (Kozlowski & Ilgen, 2006, p. 79). The description highlights the characteristics of the actual working team (Hackman, 2011), illustrated by one or more working tasks, which are communally responsible for the collaboration, assistance, and interaction between team members. In addition to, the functions and responsibilities of differentiated members, and operation related to organizational context (Noh, 2013).

The use of the team in the working organization is one of the recognized areas in today's life. Teamwork has several advantages to the organization (Moriarty & Buckle, 2003). Considering the facts that teams are *“social entities that, over time, develop a history of shared experiences or events”* (Pirola-Merlo, Hartel, Mann, & Hirst, 2002, p. 564). A team is a group of workers who accomplish ancillary tasks and assume many of the duties of their predecessor (Rozell & Scroggins, 2010). Furthermore, work teams are also outlined as (Moriarty & Buckle, 2003, p. 98): *“Groups that exist within the context of the larger organization, have clearly defined membership and shared responsibility for a team project or service”*.

Cohen and Bailey (1997), proposed that team is gathering of individuals entities who are dependent on their jobs and duties, who share combine responsibility for outputs, who are seen by others as a complete social entity integrated into one or more wider social systems and across organizational boundaries and who kept their affiliations across whole

organization. In the general management literature, the term "team" is used, whereas scientific literature trend to uses the term "group" (Cohen & Bailey, 1997), so the scope of this used in this study includes a common set of groups who worked together for a common purpose, thus they are also referred as team.

2.3 Team Performance

Empirical research shows that there are substantial discrepancies in conceptualizing the phenomena of team performance (Hackman, 1987). However, this leads to the rise of an important question that how these discrepancies can be explained regarding team performance. As, the literature found a vast number of variables that may have a significant influence on team performance (e.g. Anderson & West, 1998; Edmondson, 1999; Kozlowski & Ilgen, 2006; J. Mathieu, Maynard, Rapp, & Gilson, 2008; Salas, Cooke, & Rosen, 2008). The research scholars have advocated that the association amongst team performance and the factors which influences team performance are multifaceted and require rigorous evidence-based investigations to arrive at more consistent deductions about strengthening the team performance (Savelsbergh et al., 2010).

Although there have been many standards for effective team performance in previous studies, there are differential criteria to follow for optimum team performance in real practice (Delarue, Hootegeem, Procter, & Burrridge, 2004). At the same time, it is also ambiguous whether the various shareholders who evaluate team performance are actually involved in teamwork. Therefore usually managers use different evaluation techniques to assess the performance of teams (Poell & Krogt, 2003). The alteration in evaluators may consider different factors to influence the impact of the team or ranking performance on factors that influence team performance (Savelsbergh et al., 2010).

Team effectiveness is stated as a practice where employees working in teams share

information and team resources collectively in an effective manner, they energetically cooperate and respond appropriately to the needs of other team members (Farh, Seo, & Tesluk, 2012). However “*Team performance is a function of environmental factors, design factors, group processes, and group psycho-social traits*” (Liu & Liu, 2013, p. 184). Team performance deemed to be effective as a variety of team processes are critical to maintaining the team effectiveness and vitality. In fact, organizations around the world use teams at all levels to make important organizational decisions, and for critical work and projects. The traditional working environment and culture enable to develop such capabilities in employees, especially in team members (Moriarty & Buckle, 2003).

To gauge the performance of teams in terms of effectiveness; the team is a relatively easy concept if it has to be measured in a laboratory setting. But in case of real organizational setting, it is quite a difficult task. According to Hackman (1987), it is difficult to find objective and straight answers when discussed the evaluation of the team level and organizational tasks. In addition to, there are only a few tasks which will be measured quantifiably. Heckman established three criteria to evaluate teams’ effectiveness which are (1) The output of the group should fulfill the standards which are been evaluated by the manager or supervisor; (2) the social processes should enhance the capabilities of the team members, and (3) the group as a whole must have satisfied its individual members rather than discourage the individual needs and requirements of the group members. Similarly, Campion, Medsker, and Higgs (1993) proposed similar criteria to evaluate the output of team performance. The criteria proposed by them includes productivity, satisfaction and management judgments. These criteria are also correlated with the inputs which influence the output of the team. These are job design, interdependence, composition, context, and process.

The scholarly work by Campion, Papper, and Medsker (1996) compared team characteristics with its effectiveness. They found that, while using quantifiable measures, it is difficult to maintain comparability because of the diversity in job sets. Moreover, at the time of employees' performance appraisal, the personal judgments of the manager and other peers replace these criteria. Thus, the evaluation of teams' performance distracted a lot. However, team members assess the performance of the team in relation to effectiveness of these nine benchmarks. These are: (1) Quality of work done by the team, (2) Customer services provided by the team, (3) Productivity of the team, (4) Completion of the work on time, (5) Completion of the work within budget limits, (6) Providing innovative and creative products and services, (7) Abrupt response to the problems and opportunities of the team members, (8) Job satisfaction, and (9) Overall performance.

Out of all these benchmarks, communication and cooperation among team members are mostly used by managers to evaluate the team effectiveness. Thus, it is inferred that the central tenet to measure the performance of team lies in communication, supporting the behavior of leaders, workload sharing by members and social support. Previous studies (e.g. Boies, Fiset, & Gill, 2015; D'Innocenzo, Mathieu, & Kukenberger, 2016) affirmed that leadership in a team is a combined component tends to impart unique contribution to team performance.

According to Driskell and Salas (1992), the most critical essence which effects the team performance is the interdependence of the employees to share their information. Thus, social exchange behavior gets the most important place when team performance is discussed. Recently Kim et al (2017) point out the same opinion, that core of group lies in the interaction of its members, the social interaction of two or more people when they work together in one team. Similarly, Katzenbach and Smith (2015) propose that

interpersonal skills and group members' compatibility are the key players which influence team performance.

The characteristics of the effective team consist of cooperation, participation, and commitment to the objectives. Replication of these progressions and procedures truly lead to elevated performance. However, this opinion is not validated in the present era. As employees must understand the actual baseline conditions. These conditions consist of: confidence among members, sense of team identity (an elevated sense of sensation among team members that they are associated with a unique and valuable group) and a feeling of team effectiveness indicating the team can work in good faith and firm believes that team members can work more effectively in a teams as compared to working alone (e.g. Druskat & Wheeler, 2003; Pannick et al., 2015).

The factors of team performance, according to emotional intelligence theory of Salovey and Mayer (1990) are individual's emotional ability, applied to work tasks and organizational climate, structure, and system. In this study, the team effectiveness is one criterion for observing team performance. Hence the important element of effective team performance is discussed by (Feyerherm & Rice, 2002) includes the following: (1) team goals and values are clear and they should be easy to understand and accepted by all members, (2) People can comprehend their assigned tasks and their contribution to work, (3) Team members must trust and support each other, (4) there should be open-ended interaction and communication channel, where people exchange all important and relevant information with other members (5) Team members participate in important decisions of the enterprise, (6) everyone is obliged to complete the task on time, (6) Leaders should motivate their subordinates and set high standards of performance, (7) the differences between subordinates have been properly identified and resolved, (8) Team

structure emulates to the associated mission, vision, and goals as directed by the organization.

In addition, Goyal and Akhilesh (2007) also proposes five features of an effective team outcomes: (1) team must have dispute resolution, (2) team members must collaborate to solve problems, (3) team members' communication and interaction should be effective, (4) team must set proper goals and also considers performance management, (5) team members also work through proper planning and coordination while performing tasks. Goyal and Akhilesh (2007), suggests that for effective team performance; team relies on three proficiencies. They are (1) emotional intelligence, (2) cognitive intelligence and (3) social capital. This shows that EI is one of the critical components that influences team performance. Further, the social skills are precarious to the smooth running of the team. Literature review shows that social interaction, communication, organizational hierarchy, personal characteristics, goals, specific objectives, widespread as well as universal factors and abilities are the relevant features of the team.

Researchers draw attention to the importance of the team performance because most research is done to understand the tasks accomplished by the team rather than their emotional factors. In addition, most studies studied were disjoint and not cumulative. Measuring team performance is also an arduous task. It is recommended by Goyal and Akhilesh (2007) to conduct research about group personality, intelligence, and emotional phenomena in order to gain knowledge of the structure and function of the group.

The study by Katzenbach and Smith (2015) alludes that team performance is a multidimensional concept that is affected by many internal as well as external factors. In healthcare services, the team approach is continuously been indulging as a result of reorganization and restructuring of healthcare organizations (Heinemann & Zeiss, 2002). This is evident from a fact that team approach is being used at all level of clinical as wells

nonclinical setups of hospitals. As more emphasis is placed on providing quality services to clients and patients, many health care providers tend to educate their employees in order to improve their performance, especially when working in a team.

2.3.1 Team Performance in Healthcare Sector

Numerous studies have been conducted to scrutinize the team performance but only a handful of studies has been conducted to explore phenomena of team performance in healthcare institutions. Team performance in healthcare is more complex phenomena as medical institutions collect and analyze data to determine their customer satisfaction and narrow the gap if they find something, which causes customer dissatisfaction. This study aims to investigate the team performance to examine how healthcare institutions work with teams. Moreover, the study investigates how much these employees are satisfying while working in teams and working conditions of healthcare institutions, and team leadership. The provision of health care services by employing team working has been widely recognized throughout the twentieth century (Heinemann & Zeiss, 2002). As the mechanism of team working enables medical experts a viable source to enhance coordination among diversified medical professionals which contributes to the team performance.

2.3.2 Dimensions of Team Performance

According to the study by Shortell et al. (1991), the components of team performance that is being assessed in this study includes the following (1) perceptions of the technical quality of care provided in the unit, (2) judgments of the unit's ability to meet patient needs and (3) turnover of staff in the unit. This conceptualization of team performance in healthcare has well established psychometric properties which lead to the development of the scale. The originated and further the shortened adopted version of scales are theoretically sound with well determined theoretical foundations. The authors of this

conceptualization have advocated the adequate level of reliability and validity depicting the substantial psychometric properties of the measure. They assured empirically sound outcomes in three dimensions of team performance and provide substantial evidence to use for questionnaire-based studies.

On reviewing the literature it has been revealed that team performance is often considered as a multi-dimensional construct (Dunphy & Bryant, 1996; Wageman, Hackman, & Lehman, 2005), a variety of performance indicators can be used to measure team performance. Some of the indicators are effectiveness, efficiency, and innovation. However, effectiveness and efficiency are often perplexed and used as synonyms, but in literature, both of these constructs have different meanings. Based on the conceptualization of Shortell et al. (1991), this study explored team performance in terms of effectiveness criteria and the turnover. The effectiveness is the absolute level of achievement of goals and expectations (Hoegl & Gemuenden, 2001), depending on the extent to which the product or workflow is free of errors or deficiencies (Janz, 1999) and internal or external satisfaction with team-supplied products or services Value of the customer (Spencer, 1993). The further effectiveness of teams has also been explored in terms of innovativeness as the innovation is increasingly becoming a key competitive edge for high value-added trades and services sector (Dunphy & Bryant, 1996). In terms of the team, innovation is directed at the team's intention to introduce and apply creative ideas, procedures, commodities or programs designed to improve team performance (Woerkom & Croon, 2009).

Team performance has to confront with challenges as of turnover issues in healthcare institutions. As teams are dynamic in nature they are developed for enduring tasks, the progress with the passage of time and often times regress, turnover of the members in teams can influence their functioning Linda, Defriese & Malone (2002). Due to

reorganization and a global shortage of healthcare staff, the team member's turnover can be high which may influence and deteriorate team performance. Whereas the high level of job satisfaction and lower level of turnover can lead to effective team outcomes (e.g. Hayward, Bungay, Wolff, & MacDonald, 2016; Stephen M. Shortell et al., 1994). In healthcare organizations, teams that amicably overcome with issues of turnover and capable of the well-established momentum of interdependent tasks are probable to demonstrate effective team performance.

2.4 Emotional intelligence

“Emotional intelligence is a product of two worlds. One is the popular culture world of best-selling books, daily newspapers, and magazines. The other one is the world of scientific journals, book chapters, and peer review.” (Mayer, 1999, p.1). Over the last few years, emotional intelligence has been a standout amongst the most broadly discussed scholarly research topics in psychology and management (John D Mayer, Caruso, & Salovey, 1999; Salguero, Extremera, & Fernández-Berrocal, 2012). Although EI scholars gained fruitful results in academic psychology and management (Goleman, 1998; Wong & Law, 2002), yet the empirical effect of EI's practical implications is still controversial (Law, Wong, Huang, & Li, 2008; Law, Wong, & Song, 2004; Lyons & Schneider, 2009).

For understanding the emotional intelligence it is necessary to shed light on the concept of emotions which lies in the history of organizations is marked long ago. Hochschild (1938), a renowned sociologist, was the first who did his research on emotions in modern perspective. His book “The Managed Heart: Commercialization of Human Feeling” is considered as the pioneer, in which he beautifully portrays the concept of emotions and emotional labor. Other scholars believe that emotion is an interpreter of job satisfaction (Staw, Bell, & Clausen, 1986). In human species, emotions developed through the evolutionary process. According to Stubbs (2005), emotions provide new

insights and motivations of different dimensions. Moreover, it helps to tackle different problems with great proficiency. Likewise, Wong and Law (2002) defined emotions as: “*adaptive behavioral and physiological response tendencies that are called forth directly by evolutionarily significant situations*” (p. 247). Emotions and feelings are critical pieces of how we associate and respond to teams and organizations. So emotional intelligence monitors and direct people to behave in a sound manner (Azouzi & Jarboui, 2013).

The roost of EI can be traced back from the study presented by Thorndike’s in 1920, he suggested that the concept of “Intelligence” can be segregated into three subgroups: (1) “abstract intelligence” refers to the capacity to comprehend and oversee thoughts; (2) “mechanical intelligence” clarifies the capacity to comprehend and manage real objects and (3) “social intelligence”: that is characterized by the capacity to comprehend and manage individuals. The idea of “social intelligence” is very similar to the notion of EI (Whiteoak & Manning, 2012). Progressing the concept of emotional intelligence in 1990’s, the construction of EI was gaining more and more attention (Carmeli, Yitzhak-Halevy, & Weisberg, 2009). However, Gardner (1983) did not use the concept of EI, but a comprehensive definition of social intelligence. He put forward the “multiple intelligences” model suggesting notions, indicating the difference concerning the emotional and intellectual ability. According to Gardner (1999), “*social intelligence is composed of individual’s interpersonal and intrapersonal wisdom*”. The term Intrapersonal Intelligence “*is related to its own wisdom, and is the ability to symbolize complex and highly different senses*”. Contrary to, interpersonal intelligence involves the “*wisdom of communicating with others, and the ability to inform and distinguish between others, especially their feelings, temperament, motives, and intentions*”. Gardner's ‘interpersonal intelligence’ concept is very similar to the structure of EI.

In 1990, Salovey and Mayer (1990) for the first time used the term “Emotional Intelligence”. These scholars in 1990 distinguish EI from the concept of social intelligence and perceive emotional intelligence as the pure form of intelligence. According to Salovey and Mayer (1990, p. 189), EI is “*the subset of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions*”. Furthermore, they also defined emotional intelligence (1995, p. 197) as: “*the capacity to process emotional information accurately and efficiently, including that information relevant to the recognition, construction, and regulation of emotion in oneself and others*”. According to the EI theory proposed by Salovey and Mayer (1990), EI consists of four dimensions: “Self-Emotions Appraisal”, refers to a person's ability to comprehend his or her profound feelings and to express those feelings in a natural way; “Others-Emotions Appraisal”, the person's ability to see and comprehend the feelings of the general masses around them; “Regulation of Emotions”, the person's capability to screen; and, “Use of Emotions”, the person's capacity to direct his or her feelings in a constructive and profitable way toward valuable activities and individual performance. (Davies, Stankov, & Roberts, 1998; Law et al., 2004). The structure of EI consists of three psychological processes: 1) assessing and considering the emotions of others; 2) adjusting the emotions of oneself and others; and 3) using emotions to promote the process of thought.

Sternberg (1997) also categorizes intelligence into more than just solving problems, including oral and social competence. EI proposes to the ability of individuals to consciously manage ones’ own emotions and also successfully manage others' emotional reactions. In view of Sternberg (1997) understanding of intelligence, it is a social competence. Emotional intelligence can be seen as a form of contextual intelligence. Contextual intelligence deviates from the understanding of general characteristics of

individual intellectuals which is only limited to the analyzing ability and problem-solving. On the other hand, supporters of contextual intelligence argue that intelligence exists in multiple fields and is related to the situation in which they are used (Glynn, 1996).

People with the supreme state of EI rapidly go through these stages, additionally, such individuals enjoy the capacity to its pinnacle. Self-assessment and articulation of emotional state are identified with the capacity of people to comprehend their profound sentiments and to express these emotions normally. Individuals possessing strong skills of self-assessment are capable to understand their own emotional state. The evaluation and acknowledgment of others emotions involve the ability which refers to observe and comprehend the emotions of surrounded people.

Self-regulating indicate people's ability to emotion regulation enabling them to overcome psychological stress to recover faster. Furthermore, the usage of emotions refers to the individual ability for utilizing emotions for positive performance by directing emotions in a way which leads to constructive performance. However, after conceptualization of the EI by Salovey and Mayer (1990), the confusion about the exact meaning of the construct still exists. John D Mayer and Salovey (1997) redefined EI as *"the ability to perceive accurately, appraise, and express emotions; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and, the ability to regulate emotions that will promote emotional and intellectual growth."* (John D Mayer & Salovey, 1997)

Moreover, in context of business world, Goleman (1995) defined the construct of EI as: *"abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize and to hope"* (p. 34). The Goleman wrote the book titled as "Emotional Intelligence: Why it Matters More Than IQ" which was a

worldwide best-selling book and attracted response to the idea of EI. The book was successful to the point that later he published a book titled as 'Working with Emotional Intelligence' in 1998. This book incorporates information from more than 500 organizations and demonstrates that passionate skill prompt high performing association (Fatt, 2002).

A few researchers argued that emotional intelligence is an abstract concept (Davies et al., 1998) and fundamentally possess commonalities with the conception of personality traits. As the understanding of intelligence suggests that it is a personality characteristic that uses the cognitive ability of perception, coding, memory, and reasoning. However, numerous analysts revealed that “emotional intelligence” and “personality traits” contrast enormously as far as definition and measures are considered. Furthermore, they consider EI as an ability. Whether emotional intelligence can be a valid predictor of team performance or not, is the debatable topic and needs more empirical and experimental evidence (Day & Carroll, 2004; Zeidner, Matthews, & Roberts, 2004). Therefore, the literature addressed different dimensions of emotional intelligence, which are leader emotional intelligence and team emotional intelligence.

It appears that emotional intelligence can be an evolutionary form of human concern in the organization's history. It is like modern equipment in the hands of instructive scholars and managers to provide guidance and satisfaction for employees within the organization at individual and team level. Emotional intelligence is an idea that clarifies the part of feelings and emotions in human abilities. A manager with a high emotional intelligence is an effective leader who identifies hierarchical objectives and accomplishes them with extreme profitability which involves employee commitment and satisfaction. It is inferred that leader's emotional intelligence enhances team morale which affects the overall output of the team (Raesli, Honarvar, Fallah, & Behnood, 2016).

According to Raesli et al. (2016), emotional intelligence is the identification and control of emotions. In other words, a person who possesses the skill of emotional intelligence can successfully combine three components of emotions that are behavioral, physiological and cognitive. Emotional intelligence figures out what activity is suitable or unsuitable in social interactions as well as in certain psychological conditions. EI helps individuals to keep their hopes in life, sympathize with others, comprehend the feelings and emotions of others, neglect little prizes so as to win the bigger, do not let anxiety, dread, tension and fear to cover up his judgment and contemplations, persevere hardships and keep the mind and his spirit at all circumstances. Emotional intelligence is a sort of tender ability which decides how to utilize our aptitudes in an ideal way; it even channelizes our ideas on the right path (Raesli et al., 2016).

Mayer, Salovey, and Caruso (2000, p. 396) Define EI as: *“the ability to accurately perceive, appraise and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion as well as emotional knowledge; and the ability to regulate emotions to promote intellectual growth”*. A definition of EI suggests that EI can be seen as the ability (and thus also known as contextual intelligence) that incites the individuals to navigate successfully in all the circumstances.

Cherniss (2010) emphasized the significance of EI in three ways; firstly emotions are important for the life of navigation; secondly, EI is important for feeling and managing emotions of different people and thirdly emotional differences will affect the individual to adapt to different circumstances. Thus, Cherniss (2010) argues that perceiving and managing emotions is an ability of EI because it allows individuals to overcome the challenges of life, which means intelligence must have four abilities; which are perception (ones' own and other people's emotions), encoding (behavior in emotional state), memory

(memory of success of emotional reactions), and reasoning (emotional response is based on self-input and previous codes of success). Cherniss (2010) protects “EI as another contextual intelligence because it includes a set of concepts related to reasoning, problem-solving and information processing” (Cherniss, 2010).

The phenomena of EI has been developed in academic journals and media. However, EI critics question it as a sustainable form of intelligence. Locke (2005) argued that emotions are a reflexive response, and there is no reason to reflect these reactions. As responding to emotions is an involuntary reaction, so it attributes intelligence to the subconscious mind. Locke (2005) points out that the persons do not reason with emotions they just react. He explains the idea of EI because he believes that it is possible to navigate emotional intelligence successfully. Moreover, one can adapt emotional reactions to some extent. As he considers emotional intelligence as a learning trait rather than a personal trait. Becker (2003) also criticized EI as a personal trait and proposes that EI can be a high degree of compatibility and personality traits. Landy (2005) points out that emotional behavior appears to be too broad and inclusive because some of its supporters, such as Daniel, Boyatzis, and McKee (2002) argue that emotional intelligence can be used in six different leadership styles which are (1) “visionary”, (2) “coaching”, (3) “affiliative”, (4) “democratic”, (5) “pace-setting” and (6) “commanding”. As the leaders change their leadership style according to the situations. Leaders adopt whichever style of leading the ability of emotional intelligence to facilitate the process of leadership as it ensures the smooth process of emotions management.

According to Klare, Behney, and Kenney (2014, p. 23) *“the emotional processes and motivation necessary for EI emanate from the brain’s limbic system, rather than the cerebral cortex which is responsible for higher thinking and language. Therefore, the limbic system is the part of the brain we need to engage to develop and deepen our*

emotional intelligence, and it is a system that learns through motivation, extended practice and feedback”. There are three ways according which human mind operates: cognition, affect and motivation. Cognitive domain includes the memory of human, logical thinking, judgment and intangible thoughts. Secondly, the affective domain comprises of opinions, feelings, emotional state and reactions. Finally, the motivation is inclined and related to personality leading behaviors for searching goals. Cognition and effect constitute the construction of EI (Fatt, 2002).

Emotional capacity depends on EI's learning capacity, in the wake of achieving the specific level of accomplishment. EI is one of the key success factors in the accomplishment of organizational tasks. Workers with increased amounts of EI will be more mindful of the components that effect and impact their constructive and antagonistic feelings. Compared to Intelligence Quotient (IQ), Emotional Intelligence (EI) is a more important indicator of intelligence. IQ is an intelligence that can be easily measured to assess human intelligence by using standardized tests. IQ scores are mostly utilized for instructive placements, intellectual disabilities' appraisal, and assessing candidates' work. In research settings, they have been considered as indicators of job performance, and salary. According to Goleman; emotional intelligence can be more effective than IQ, in forecasting the success of individuals (Goleman, 1998).

Organizational and administration research progressively advocates that individuals with the supreme ability of EI tend to be successful in their careers and feels less secure at the job (Jordan & Troth, 2004). Furthermore, they ensure more output while they performing in teams (Higgs & Rowland, 2002), and are more versatile to work under stress conditions (Bar-On, Brown, Kirkcaldy, & Thome, 2000) and show improved handling approaches (Jamali et al., 2008). Social Scientists affirmed that emotional

instability is one of the central prerequisites for failure in middle and senior management (Liu & Liu, 2013).

A high-quality person knows his emotions and regulates them in an appropriate way. *“A person with a high degree of emotional intelligence is aware of his emotions and other people's emotions and the ability to communicate effectively with others”* (Rozell & Scroggins, 2010). According to (Wong & Law, 2002, p. 244), EI is referred as: *“a set of interrelated abilities possessed by individuals to deal with emotions, while emotional labor is referred to as emotion-related job requirements imposed by organizations”*. Beigi and Shirmohammadi (2010, p. 211) defined EI as: *“capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships”*.

Perhaps the EI has many effects on the performance of the staff, and the literature review shows that there is still a room for considerable research to determine the impact of EI on work and team performance (Carmeli et al., 2009). Pointing out the literacy gap, the prompt scholastic researchers focus on this empowering idea. The empirical studies will be discussed in the section ahead.

2.4.1 Emotional Intelligence Models

In literature, numerous models of emotional intelligence can be found. Such models are directly related to the performance of sociology, psychology, neuropsychology, and other fields. The models of emotional intelligence can categorize into two segments: (1) ability models and (2) Trait model/Mixed Model. EI's ability-based definition is: *“perceive, appraise, and express emotion; to access and/or generate feelings when they facilitate thought; to understand emotion and emotional knowledge and to regulate emotions to promote emotional and intellectual growth”* (Hong, Catano, & Liao, 2011, p. 323). This definition of ability based model adheres to the ability and capacity. Ability

models are fair to cognitive intelligence (Rosete & Ciarrochi, 2005). It evaluates the association of emotion and intelligence as a skill or ability which was primarily developed by Salovey and Mayer (1990). This EI model is significant from other models of EI as it successfully differentiates characteristics of traits, cognitive intelligence and social wants (Groves et al., 2008). Contrary to this model, the trait / mixed model is composed of optimism, self-concept, self-confidence, trust, and selflessness (Feyerherm & Rice, 2002). Such patterns syndicate the traits of personality with social behavior. The mixed mode has changed greatly after the work of Bar-On (2006) and Goleman (1995). EI's mixed models are criticized because they have insufficient systematic accuracy in terms of measures (Mayer, Salovey, & Caruso, 2008). However, researchers believe that the robust relevance to the expected organizational results and refer to the potential utility of the mixed model in organizing, leading and managing the expanded environment (Goleman, 1995, 2001). Table 2.1 presents theoretical basis of three different models of emotional intelligence with three capability of measuring distinctions.

Table 2.1: Three Models of Emotional Intelligence

Theoretical Basis	Authors	Measurement distinctions
Ability	Mayer, Salovey and Caruso Schutte et al.	MSCEIT – direct performance assessment of emotional processing, some scenarios testing; confusion on scoring between consensus and expert scoring models (Mayer & Salovey, 1997; Salovey & Mayer, 1990).
Behavioral	Boyatzis and Goleman	ESCI-360, functional approach inductively derived from effective performance, called competencies (more outcome-oriented and realistic in real settings) (Boyatzis and Goleman, 1996; Wolff, 2005, 2008).
	Bar-On	EQ-i: 360, although originally a self-report, the 360 was introduced in 1997 (see placement later in this table) (Bar-On, 1997)
	Dulewicz et al.	EIQ, a 360 of competencies (Dulewicz & Higgs, 2003)
	Bradbury	EQA, a 360 skill assessment modeled after Goleman and Boyatzis model (Bradbury and Su, 2006).
Mixed	Bar-On	EQ I originally a self-report, internally process- driven EQ I model (more psychological than others), but now more behavioral in its 360 form (Bar-On, 1997).
	Schutte et al.	Self-assessment based on Mayer Caruso Salovey test (Schutte et al. 1998).
	Wong and Law	Self-assessment based on MSCEIT (Law et al., 2004).
	Petrides and Furnham	TEIQue, a self-assessment of trait EI based on a content analysis of major models (Petrides & Furnham, 2000, 2001, 2003).

Source: Boyatzis and Ratti (2009, p. 756)

Based on the above discussion and models presented in table 2.1, there are two notable EI models (Stubbs, 2005). The first is Goleman (1995) to evaluate the employee EI level. The model was adapted in a similar manner to the Salovey and Mayer (1990) models. This framework has five branches: “self-awareness”, “self-regulation”, “motivation”, “empathy” and “social skills”. The five dimensions can be classified into two groups: (1) personal competence indicating the controlling own emotions and (2) social competence refers to control others emotions. The dimensions of this model are explained in Figure

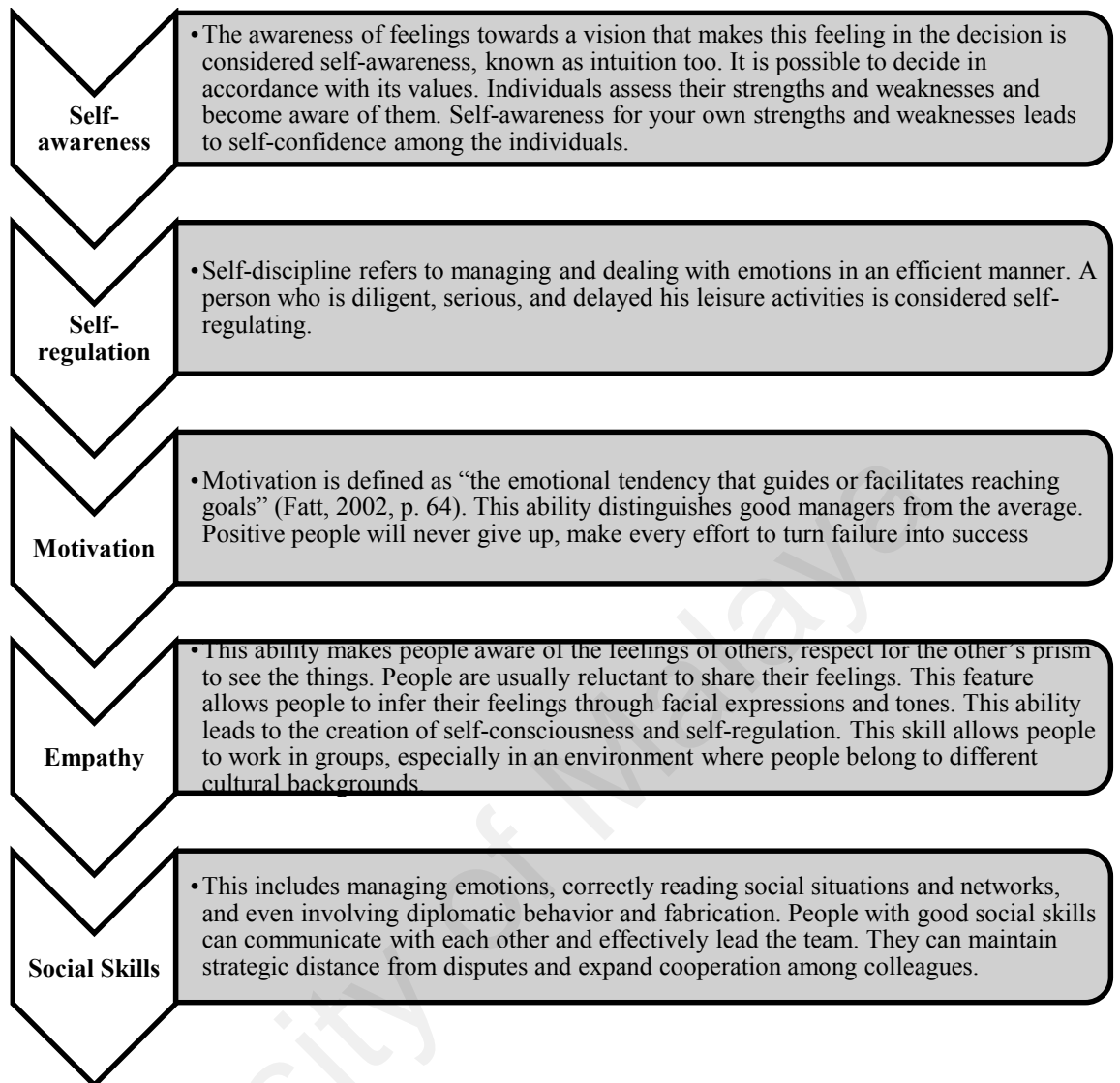


Figure 2-1: Dimension of Emotional Intelligence

Numerous research investigations rely on self-reported measures of EI such as Bar-On Emotional Inventory (Bar-On, 1996), EQ Test (Goleman, 1995), and EQ Map (Cooper & Sawaf, 1998) size. These measures inclined individuals to respond as per his own perceptions which may lead to biases and hence inaccurate responses (Rozell & Scroggins, 2010). The current study has contributed to the literature by using EI measurements gathering information about the emotional intelligence of leaders from members. The main similarities and differences between the two models have presented in table 2.2

Table 2.2: Theorist Comparison

Cluster	Goleman	Mayer and Salovey
Internal Awareness	Accurately know own emotions Self Confidence	Knowing one's emotions Knowledge of causes of one's emotions Knowledge of consequences for emotion Knowledge of emotional progression over time
Internal Management of Emotion	Emotional self-control Motivation Delay gratification Use feelings to make decisions Initiative Optimism Adaptability Transparency	Managing emotions, Appropriate expression of emotion Motivating oneself Use of emotions to influence decision making Positive mood maintenance Change negative mood to positive
External Awareness	Empathy (sensing others feelings and emotional state) Awareness of organizational surrounding Service Orientation	Empathy (awareness of others feelings, builds on self-awareness)
External Management of Emotion	Handling emotional upsets of others Social effectiveness Developing others Influence Inspirational leadership Teamwork & collaboration Change catalyst Conflict Management	Managing emotion in others Accurately express others' emotions Social competencies Handling relationships

Source: Stubbs (2005, p. 23)

2.4.2 Emotional Intelligence Theories

There are numerous definition and theories of EI. There is no doubt that Salovey and Mayer (1990), Goleman (2001) and Boyatzis (1982) are the major advocates of the construct of EI. Other theorists have proposed unique models of an individual's EI. Bar-On (1997) defined EI as: "an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and

pressures” (Bar-On, 1997, p. 14). Bar-On (1988) devised the term “emotional quotient” (EQ), as an equivalent to intelligence quotient (IQ). His model thus framed EI in the context of personality theory and is best viewed as a general model of psychological well-being and adaptation. The Bar-On theory of EI is the foundational origin of the Emotional Quotient Inventory (EQ-I). The EQ-I is a tool which has five dimensions. These dimensions consist of intrapersonal intelligence, interpersonal intelligence, compliance, stress management, and mood. The five dimensions further consist of many items. Intrapersonal intelligence includes various items: emotional self-awareness, confidence, self-regard, self-actualization, and freedom. Interpersonal intelligence consists of sympathy, interactive relationship, and citizenship.

The EI dimension compliance consists of analytical reasoning, reality testing, and elasticity. Stress management comprises both stress forbearance and desire to control. General mood contains both contentment and joyfulness. Moreover, Saarni (1990) elucidated EI as: “demonstration of self-efficacy in the context of emotional eliciting social transactions”(p. 116). Later, Saarni (1990) redefined EI as: “how people can respond emotionally yet simultaneously and strategically apply their knowledge about emotions and their expression to relationships with others so that they can negotiate interpersonal exchanges and regulate their emotional experiences as well” (p. 116). On the other hand, Davies et al. (1998) believed that EI “encompasses a set of conceptually related psychological processes involving the processing of affective information. These processes include (a) the verbal and nonverbal appraisals and expression of emotion in oneself and others, (b) the regulation of emotion in oneself and others, and (c) the use of emotion to facilitate thought” (p. 990). Davies’s (1998) three dimensions similar to the conceptualization of EI by Salovey and Mayer (1990) and Goleman (2001).

Furthermore, Dulewicz and Higgs (2003) proposed seven main clusters of characteristics in EI. These characteristics included an individual's self-awareness, emotional flexibility, impetus, kindness, influence, instinctiveness, and suspicion.

After comprehensively explaining models and theories of EI, next section reviews empirical studies conducted regarding the two constructs of the study under the domain of emotional intelligence which is of leader's emotional intelligence and team emotional intelligence in two different sections to identify the literature gap.

2.4.3 Empirical Studies of Emotional Intelligence

The following section reviews empirical studies in regards to emotional intelligence. The research study by Rooy and Viswesvaran (2004) shows that cognitive ability has a 25% difference in job performance. Studies have shown that the rest of the variation is explained by non-cognitive ability. The non-cognitive abilities such as emotional intelligence of leaders are of substantial significance. As leaders are not only responsible for managing their emotions but are also responsible for handling and managing the emotions of their team members. It is observed that successful leaders often require high levels of EI (Clarke, 2010; Farh et al., 2012; Liu & Liu, 2013). Thus, EI enhances leadership's ability to deal with problems and opportunities

Many scholarly studies have built up a general connection amongst EI and work performance (Cavazotte, Moreno, & Hickmann, 2012; Hur, Berg, & Wilderom, 2011; Wong & Law, 2002), few issues are left to be tended. For instance, the connection amongst EI and job performance gives off conflicting impression in the prism of past studies. Numerous researchers expected that EI would have a positive association with job performance. These researchers are mostly in organizational and behavioral psychology (Fredrickson, 2001; Hirt, Melton, McDonald, & Harackiewicz, 1996; Totterdell, 2000; Tsai, Chen, & Liu, 2007; Wong & Law, 2002). The fallouts of these

research studies indicated that EI produces a positive work psychology so that EI can be an asset for professional behavior. However, according to the theory of resource allocation (Kahneman, 1973; Kanfer & Ackerman, 1989; Norman & Bobrow, 1975), another tendency which researchers considering that the use of emotions (UOE) on work can have a negative impact on work performance. The evidence shows that emotion may require the psychological resources of an employee and attract attention from their task, resulting in a reduced performance at work (Beal, Weiss, Barros, & MacDermid, 2005; Vohs et al., 2014).

Likewise, there is another unintended indication that, in some cases, emotional intelligence may actually cause damage to team performance (Feyerherm & Rice, 2002). In this regard, Feyerherm and Rice (2002) found that the higher the emotional intelligence of team leaders, the worse the team performed, but they did find a positive correlation between team leaders' understanding of emotional abilities and the performance of customer service indicators (p. 34). Jordan and Troth (2004) and Offermann, Bailey, Vasilopoulos, Seal, and Sass (2004) found that teams with higher EI levels were better than those with lower EI levels. The impact of leader's EI on team performance varies from case to case. If the organization's goal is customer service or quality, EI is the most important focus of the organization. EI is not a key factor if the organization is determined to increase productivity. In addition, under high-pressure conditions, EI is an important predictor of team effectiveness, and EI is not an important indicator of low pressure (Whiteoak & Manning, 2012).

The current study provides some evidence that supports the proposition, impact of leader EI on team performance. Boyatzis and Ratti (2009) have shown that top and middle layered managers who exhibit high emotional intelligence perform better than those with a low level of EI's ability. The study was conducted in Italian large multinationals and

five Italian cooperatives, using two tools for evaluating emotional intelligence: interview and questionnaires.

Farh et al. (2012) stated that employees working in leadership positions with higher levels of emotional intelligence subsequently had higher teamwork and job performance. The trait theory cannot be rejected because the study of traits of successful leaders shows some potential links with identifiable elements in the emotional intelligence concept; like the ability to identify, comprehend, perceive and manage emotions. Past reviews showed that traits were essential to figuring out which individual suitable as group leader. The most discriminatory leadership theories are related to the maturity and extroversion of other people's societies (Hays et al., 1967).

The study by Quoidbach and Hansenne (2009) proved the positive relationship between emotional regulation (that is one of the determinants of EI) and health care quality (that is one of the determinants of team performance) in regional hospital center in Belgium. Whiteoak and Manning (2012) investigated the relationship between employees' perceptions about supervisor's EI with a number of important organizational outcomes in a large government-run organization in the United Arab Emirates (UAE) and proved a positive association between these constructs.

The study of the Stark and Hansene (2009) confirm that there is a positive relationship between emotional regulation at the center of the Belgian Regional Hospital (which is one of the determinants of EI) and health care quality, which is one of the determinants of team performance. Whiteoak and Manning (2012) investigated the relationship between the employee's EI perception and the important organizational results in the large United Nations operations in the United Arab Emirates and demonstrated the positive correlation between these structures.

According to Riggio and Reichard (2008) states that the relationship between leader's EI and team performance can be exhibited through an emotional transmission process. Emotional transmission is a process in which the leaders expressed their feelings to their subordinates. Rooy and Viswesvaran (2004) explored the relationship between static variables and EI in the distinct Lebanese context. The results show that men have higher scores in self-regulation and self-motivation, while women have higher scores in self-awareness, compassion and relationship management. In addition to compassion, senior managers are always higher than middle managers in every dimension of EI. Education level and age (except self-motivation) have no effect on EI level. The most important finding of this study is that the EI score increases with management positions, indicating that EI is the key to effective leadership and team performance. EI should be an important criterion for recruiting staff and promotion.

The study of Hong et al. (2011) is the first study to explore the relationship between EI and its motivations to lead. According to the study, the use of emotions is an integral part of leaders EI, is directly proportional to affective-identity and social-normative motivation to lead and indirectly proportional to the emergence of the leaders. Wong and Law (2002) established a brief EI measurement. According to him, the EI measurements were developed in good agreement with previous EI measurements, such as Trait Meta-Mood and equilibrium (EQ-i). The study of Wong and Law demonstrates that emotional labor regulates the relationship between leadership EI and job performance. Emotional labor also reduced EI commitment and EI turnover relationship.

Prentice (2013) explores the role of EI in regulating the relationship between emotional labor and its consequences in US healthcare institutions. To prove that emotional labor and burnout are directly related, and EI is helpful in reducing burnout. Previous studies have shown that individuals who have high EI experiences more satisfaction in life and

during work (Law et al., 2008; Law et al., 2004). Rozell and Scroggins (2010) argue that higher level EI people are come up with more creative solutions while solving problems as compared to people who posits lower EI, they do not count and are not likely to get along with their colleagues. The higher the EI, the more it converts negative emotions into positive emotions, and less likely to manifest negative feelings. Thus, EI has become one of the main variables in predicting job outcomes (e.g. job satisfaction, job performance; Law et al., 2008; Sy, Tram, & O'Hara, 2006). Therefore, EI should be conceptualized as an adjustment between a person and his environment (Chiva & Alegre, 2008). In other words, people with higher EIs are more sensitive to their emotions and other workplaces, allowing them to adjust their mental state, form a positive emotional expression and control their own job. In addition, in the case of work stress, higher EIs can more easily manage their emotions and find a solution to better professional outcomes (Law et al., 2008; Law et al., 2004). So, it is inferred that EI is positively associated with the employees' work performance (Chen, Bian, & Hou, 2015).

The literature review shows that previous scholarly work found that there exists a positive relationship between emotional intelligence and job performance but there is little attention given to the impact of leader's EI and team performance. The greater part of the examination is completed in a Western domain, urging and persuading researchers to investigate this highly stimulating foundation with regards to developing nations, for example, Pakistan. The positive relationship between EI and mental health, job satisfaction, job performance and population variables have been identified before. This attracts the attention of scholars to pay attention to the relationship between EI and team performance.

2.5 Leaders Emotional Intelligence

The literature discussed earlier comprehensively articulates the evolving phenomena of emotional intelligence which suggest that the ability of emotional intelligence serves multiple purposes for human interactions and behavioral studies. This section explains the amalgamation of leadership abilities with emotional intelligence thus explaining the construct of leader's emotional intelligence for this study.

Now a day, most organizations are on the verge of change; the progress in any facet needs workers and directors who are versatile and capable of coping with change. Thus Emotionally Intelligent Leaders are unequivocally expressive and can utilize emotional ability to spread sentiments of joy and brightness to improve subordinates working positively and enhance their level of job satisfaction (Ilies, Curşeu, Dimotakis, & Spitzmuller, 2013; Wan, Downey, & Stough, 2014). Social cooperation as a helpful strategy for administrators and leaders and is considered one of the key component for a leader to manage performance and adapting change effectively. Keeping in mind the end goal to survive today's focused and unstable condition, organizations ought to furnish themselves with modern thinking business techniques and continually improve under dynamic leadership abilities. Driving such associations is a delicate and complex issue; and this sensitivity escalated when instead of technical change, the leader's needs to manage versatile changes. Specialized and technical issues can be understood with the assistance of specialized information and traditional ways of problem-solving, while versatile issues require diverse arrangements.

The leadership of organizations requires certain attributes and capabilities in order to adopt certain changes and survive in new business conditions, which most supervisors find hard to meet. Studies uncover that managers and leaders who can communicate effectively with human resources will dominate. In this regard, emotional intelligence is

one of the components that can affect the relationship between managers and members of the organization (Raesli et al., 2016).

The question raises, what does this issue need to do with leadership and management of an association? Many people heard stories like a very intelligent and talented leader fails as a leader, while someone else with mediocre aptitude prevails in a comparative circumstance. Excellent leaders have distinctive individual qualities. Some are quiet and natural, while some yell out their thoughts on their subordinates. However, the vital issue is that distinctive circumstances call for various abilities of leaders. There are scenarios where companies are merged together, they require an enthusiastic negotiator and powerful leader (Miao, Humphrey, & Qian, 2016; Raesli et al., 2016). However, all influential leaders have high emotional intelligence which is observed commonly in them. No doubt, IQ, and expert skills are likewise required, but they are mostly seen as core competencies; In other words, these are mandatory for becoming a leader. However, late reviews uncover that emotional intelligence is a compulsory element for leadership; without this one could possess the best education on the planet, a confirmed and diagnostic personality, and boundless sources of brilliant and splendid ideas, yet incapable of turning into a great leader (Raesli et al., 2016). Therefore, it is inferred that Leader's EI is an idea that has caught the attention of research specialists and experts, yet minimal experimental consideration has been given to affirm such claims.

The existing body of knowledge certifies that the supreme state of EI prompts expanded work performance at individual and group level (Azouzi & Jarboui, 2013; Beigi & Shirmohammadi, 2010; Carmeli et al., 2009; Whiteoak & Manning, 2012). The ability of emotional intelligence brings such competencies in leaders which results in enriched leadership practices. Lunenburg (2011) depicted that various insights develop and passionate knowledge set up massive thought, principally by methods for authority

capacity. Hence EI is germane to people working as leaders. In a situation where leaders could not understand the emotions of their colleagues and suitably react to their subordinates emotions leads to, miscommunication amongst workers. Subsequently, subordinates consider them as irrelevant which ultimately dispirits their capacity to build association which is fundamental to effective team performance (Klare et al., 2014).

The management practices may have been utilizing few aspects of EI without monitoring its significance; however these days it is evident that the advancement of the business and the emotional intelligence is triggered in "Key-Lock" relationship; whereby, EI work as a key to make the opportunities accessible to business world and management practices to flourish (Hejase, Al-Sayed, Haddad, & Hamdar, 2012). EI holds evident significance for the leaders as they are in charge of heartwarming their subordinates' emotions, understanding subordinates knowledge, and suppositions with respect to work. Therefore effective leadership relies upon the comprehension of feelings of subordinates (Palmer, Walls, Burgess, & Stough, 2001). It is guaranteed that EI prompts 85 percent outstanding accomplishment in leaders (Palmer et al., 2001). According to Hong et al. (2011, p. 321), leadership is: *"an intrinsically emotional process in which leaders display certain emotions and attempt to evoke and control other emotions in their followers"*.

Earlier researchers (Bass, 1985; McColl-Kennedy & Anderson, 2002) endorsed that individuals view of leadership style seems to be a significant factor in affecting worker performance. Numerous leadership theories exhibited that high level of emotional intelligence of leaders emphatically impacts on employee's sentiments, emotions and their work performance (Bono, Foldes, Vinson, & Muros, 2007; Judge & Piccolo, 2004). Managers that possess such qualities will practice admired impact, individualized thought, scholarly motivation, and rousing inspiration to their zealots. In another way around, leaders create a visionary environment and create a working environment for

creativity and innovation development. At the same time, leaders have exclusive standards for their supporters and followers, additionally, they also pay attention to the individual requirements for their progress and accomplishment (Chen et al., 2015). In such a supportive atmosphere, subordinates can accelerate personal development (Jung & Sosik, 2002), resulting in higher satisfaction (Trottier, Van Wart, & Wang, 2008); becoming more conscious about the work outcomes (Epitropaki & Martin, 2005), thereby improving performance at work. Consequently, leading abilities viewed as an imperative factor which influences the relationship between subordinates emotional intelligence and related performance. It depicts that emotionally intelligent leaders utilize emotions to motivate their followers.

Leaders with emotional intelligence tend to maintain a contributing internal work culture which involves safe care and thus give a response to followers. Besides this leaders can provide a sense of security for followers and give followers the way they explore (Hansbrough, 2012; Popper & Mayseless, 2003). Numerous emotional abilities have a positive association with leadership. The study by Riggio and Reichard (2008) revealed that the abilities of “emotional expressiveness”, “emotional control” and “sensitivity” have a significant positive relationship with leadership. The ability of emotional expressiveness for leaders indicate how leaders communicate with their followers to motivate them. The term emotional sensitivity explains the ability to perceive the emotions of others. Lastly, the emotional control clarifies the directing and controlling of emotions.

According to the researcher's (George, 1995; Grandey, 2008; Kelly, Spoor, & Forgas, 2006; Sy, Côté, & Saavedra, 2005), leaders displaying optimistic emotions are conscious in structuring team processes and design team performance through their thoughtful aptitude. Lindebaum and Cartwright (2010) and Schaubroeck, Lam, and Cha (2007)

explore how leaders influence their team processes and performance (N. W. Chi, Chung, & Tsai, 2011). Leaders stand for an emotion-oriented leadership style, and leaders connect with their subordinates through emotional communication (George, 2000). Leaders are becoming the ideal inspiration to go beyond their own interests and pursue the organizational vision and/or mission. Therefore it is depicted in the above literature that emotionally intelligent leaders can communicate the organization's strategic goals and vision through imperative gatherings, encourage employees to meet challenges, focus on employee emotions, and support staff development and performance to meet needs by aligning employee goals and organizational goals, so that employees and the organizational leads towards successful results (Chen et al., 2015).

In line with previous research, it is also inferred that when the leaders have a high degree of emotional intelligence, subordinates feel more closed to their supervisors, and are more likely to express their feelings. In addition to, they had fewer occurrences of negative states of mind, and they make better use of their emotions for progressing tasks and activities resulting in subordinates improved working outcomes. Accordingly, it is noticed, when leaders perceived higher EI, it leads to higher team performance, similarly, when organizational leaders perceived lower EI, the association amongst constructs of leader's EI and team performance becomes fragile (Chen et al., 2015).

Leader's EI prompts the advancement of positive vitality, brightness and good faith among workers (Ashkanasy & Daus, 2002; Dasborough, 2006; Liu & Liu, 2013). Researchers have contended that viable management and leadership conduct fundamentally relies on the leader's capacity to tackle complex social issues that emerge in teams and organizations (Wong & Law, 2002). Moreover, EI empowers the leaders to be well aware of the qualities and shortcomings of his team as well as of the organization in which team is working. Leaders EI accelerates the emotional realization and

intelligence amongst team members of being more responsible which empower them to respond adaptively to various circumstances. An emotional intelligence in leaders privilege them with a wide collection of qualities: having a definite vision, profoundly energetic to accomplish the task, an engineered view to catch unforeseen circumstances and possess a high level of self-efficacy (Azouzi & Jarboui, 2013).

According to Clarke (2010, p. 128): *“The outcome of the emotional exploration in conjunction with critical reflection leads to greater self-trust, inner strength, and feelings of courage. By recognizing the interdependent relations of feelings and critical reflection there are significant implications for transformative learning”*. Therefore it is inferred that leader EI displays the characteristics of being confident, they trust in themselves, and inclined to be courageous.

The study by Hooijberg, Hunt, and Dodge (1997) incorporates the concept of emotional intelligence into modern leadership theories explaining the configuration of social, cognitive and behavioral leadership intricacies. Socially configured ability of a leader involved two mechanisms of “social differentiation” and “social integration”. On the other hand, respectable leaders ought to display a respectable comprehension of their own emotions as well as emotions of others and they are capable enough of collaborating emotions with their colleagues.

Individuals with higher EI are more sensitive toward their own and others feelings in the work environment, which enables them to modify their mental status, and to create positive emotional articulations and display controlled behavior at work (Angela et al., 2015). Thus leaders with the high competence of emotional intelligence proved to be more empowered and efficient in acknowledging organizational objectives with greatest efficiency, fulfillment, and commitment to work (Devi, 2016). According to Wong and Law (2002, p. 245), “specific examples of the type of intrapersonal competence

associated with leader development initiatives include self-awareness (e.g., emotional awareness, self-confidence), self-regulation (e.g., self-control, trustworthiness, adaptability), and self-motivation (e.g., commitment, initiative, optimism).’’

These abilities come under the umbrella of emotional skills, which show the feelings are apropos for viable leader performance. The investigation by Erkutlu and Chafra (2012) estimated that leaders who have skills of EI are required to instill enamoring vision, make collective excitement and influence subordinates by understanding their emotions and thereby dealing emotions effectively. In addition, such leaders are better acclimated to condition, they tend to be more flexible and good at harmonizing with employees.

2.5.1 Dimensions of Leaders emotional Intelligence

The current study uses the conceptualization of emotional intelligence proposed by Wang & Law (2002); based on models of Salovey and Mayer (1990). According to this model, Emotional Intelligence has four dimensions such as (1) “Self-emotion appraisal”, (2) “Other’s emotions appraisal”, (3) “Use of emotions” and (4) “Regulation of emotion”. The four dimensions are parallel to the dimensions proposed by Salovey and Mayer (1990). Identify and evaluate your emotions is similar to a self-emotion appraisal. Identify and evaluate the emotions of others is called other people's emotions. The use of emotions has the same name in both modes. Finally, the management of emotions and emotional regulation is similar.

2.5.1.1 Self-Emotion Appraisal

It refers to the ability which includes identifying, diagnose and differentiate the emotions and feelings of oneself. People who recognize emotions of their own; can assess workplace emotions. Such a person can express their feelings and is more sensitive

towards the untruthful, deceptive and deceitful emotions poses by others. Other's emotions appraisal.

2.5.1.2 Other Emotion Appraisal

It incorporates the ability to acknowledge others emotions, unpredictability, and nuance of feelings and their interrelationships. An individual can recognize feelings in various circumstances. He comprehended the different examples and blends of feelings and started to infer the request in which feelings happened. A person enjoying this ability is capable of understanding the facial, as well as imaginative identification of emotion, is also mandatory for true identification of emotions.

2.5.1.3 Use of Emotions

It encompasses the extent of utilizing emotions for improved thinking capabilities, intellectual stimulation, and positivity of emotional power. Predicting the ability of others for improved decision making. Using emotions enhanced the person's ability to understand multiple perspectives in diversified situations.

2.5.1.4 Regulation of emotions

This includes aptitudes to direct and control feelings felt emphatical. Further, it enhances the individual's intelligence by noticeably inquisitive to learn feelings and ready to think about his feelings and direct them emphatically for the ultimate positive outcomes.

By summarizing; the emotionally intelligent leaders are confident, physically attractive and have a broad network of social ties. Emotional expression enables the leader to develop a positive emotional climate in the organization, thus leading to high team performance. According to Fredrickson's broad and build theory, positive emotions develop positive emotional climate and thereby increases the level of positive emotional well-being, organizational citizenship behavior, and satisfaction.

2.6 Team Emotional Intelligence

The preceding section critically presented the literature on leader's emotional intelligence. Moving towards the Team emotional intelligence; recent scholarly work on emotional intelligence (e.g. Druskat, Mount, & Sala, 2013; Kaufmann & Wagner, 2017; Lee & Wong) advocates for group level emotional intelligence, which is also termed as team emotional intelligence.

Management researchers who advocated the actual existence of team emotional intelligence are of the view that, emotional intelligence exists and makes the interaction more effective when individuals interact with each other. Thus, it is quite possible that team emotional intelligence (Team EI) may develop when the members of the team interact with each other, similarly (Druskat et al., 2013; Jordan & Troth, 2004).

Numerous researchers examine and believe that team performance (which involves not only quantity of work but also quality) is affected by team input attributes (individual attributes, group culture, team and task characteristics). The team attributes which influence the team performance include team processes and organizational characteristics. Emotional awareness and emotional management have a substantial influence on team performance, as such abilities help to maintain an effective and appropriate relationship with colleagues (Jordan & Troth, 2004).

There are many benefits associated with high-level team EI. These benefits include lower levels of stress, increased organizational commitment and job satisfaction, and high creativity levels. Consequently, such job attitudes positively influence organizations' ultimate results by decreasing the turnover rate, enhancing productivity and improved work execution (Feyerherm & Rice, 2002; O'Boyle, Humphrey, Pollack, Hawver, & Story, 2011; Whiteoak & Manning, 2012).

The ability of emotional intelligence is directly related to social interaction with colleagues and team workers. Such abilities are part of social skills that are rooted in EI. Carmeli et al. (2009) argued that higher levels of EI lead to higher intellectual skills. The research by Liu and Liu (2013) reveals that the impact of team-led with the ability of EI creates positive work atmosphere for the job performance and satisfaction of members. According to this study, emotional intelligence is highly recommended for employees while working in teams and is directly influenced by their job satisfaction.

The concept of team EI is linked to the concept of teams and team performance which is already explained in the earlier sections of this chapter. The entire construct of team emotional intelligence revolves around the working of team members and how emotional intelligence influences teams' performance. Hence this study introduces team EI as a mediating variable to explore its extent on team performance.

Team EI is defined as: *"being mindful of the emotions of its members, its own group emotions or moods, and the emotions of other groups and individuals outside its boundaries"* (Druskat & Wheeler, 2003, p. 82). Hence the phenomena of Team EI is characterized as a group culture made by adopting certain standards and norms that will lead to socially positive and productive working conditions, (for example, trust, group identity, high competency of the team), bringing valuable communication, collective work process and team viability and effectiveness. The principles are the enforced rules for the social execution of the behavior of the team members' individuals. The group level EI particular concentrates on three levels of conduct in the group: individual team member, overall team behavior and external stress behavior (for non-team members).

The fundamentals of the teams are the practices which are mandatory to the teamwork and its collaboration. They incorporate enforcement of the group's objectives and goals, utilizing compelling meeting methodology, and characterizing the duties of each

colleague. Once these basic procedures are set up, they make a stage from which Team EI standards encourage higher implementation and performance. The study by Stubbs (2005) discovered nine norms which are essential for team emotional intelligence. These norms are presented in table 2.3.

Table 2.3: Norms essential for Team Emotional intelligence

Norms	Explanation
Interpersonal Understanding Fundamental Norms	It depicts that how much a team tries to understand the necessities, viewpoints, abilities, and emotions of its individuals. The strength of this specification affects the team's ability to establish a safe and trustworthy environment and a comprehensive group character.
Addressing Counterproductive Behaviour Understanding fundamental Norms	It advocates that the team is opposite to the agreed specifications or detracts from the effectiveness of the team in relation to the actions of the members. This specification requires compassion, self-control, and persuasion skills to be effectively implemented. It must also be added to the standards of interpersonal behavior and care. Solving the power of counterproductive behavior gives confidence to team members and helps create a climate of security and trust.
Caring Behaviour	It refers to the extent to which the team members treats their other team members with respect. Moreover, they would be kind to each other and supports their needs and efforts. This does not mean that team member's mere socializes and interact with each other. The main tenet of this standard is to create an environment of security and trust and the degree of inclusive team identity.
Team Self-Evaluation	It advocates that the team is taking steps to determine how well its processes and performance are effective. This will also produce emotional consequences as this will cause emotional threats. The following three specifications determine how the team handles these threats. High-performance teams tend to interpret the reality and situation as it exists and try to avoid challenging conversations or emotional threats. The strength of this standard affects the extent to which team members build team effectiveness, indicating that they feel more powerful and effective at work than they work on their own.
Creating Emotion Resources	It refers that the extent to which the team creates resources that can enrich and discuss emotions (such as time, common language, tools). This helps to effectively solve problems and make decisions by improving the quality of thinking and making emotions effective. The strength of this standard affects the extent to which team members develop team effectiveness, indicating that they work harder and more effective than working alone.

Table 2.3 , continued

Norms	Explanation
Creating an Affirmative Environment	This norm refers that while faced with daily and superior challenges, the team remains optimistic and constructive. This has normative emotional consequences that team members remain optimistic. This will lead to team members' effectiveness and minimize the threat caused by the challenge. The strength of this standard affects the extent to which team members build team effectiveness, indicating that they feel more powerful and effective at work than they are working alone.
Proactive Problem-Solving	The extent to which a team foresees challenges or complications and works carefully to prevent and resolve them. This standard has emotional consequences similar to creating an affirmative environment. The higher the team becomes proactive in forecasting and solving problems techniques, the more power a team will sense their destiny. The central tenet of this standard affects the extent to which team members develop a sense of team effectiveness
Organizational Understanding	It refers to how much the team is taking steps to understand the needs and concerns of relevant shareholders outside the group, as well as the impact of their work and their contribution to organizational goals. This standard has emotional outcomes regarding the relationship of the group to leaders and other applicable partners. To fabricate ties outside the group, you need to know them first. The advantage of this standard affects the extent to which the team develops a network that can help regarding the upcoming performance of the team.
Building External Relationships	It advocates that how the team actively and strategically establishes the relationships with those individuals and teams who provide assets, resources, and supplies, as well as influence team performance. The emotional consequence of this norm is that it makes contact with people outside the team, and it will appreciate its efforts and attract other resources which help the team to achieve its goals. This leads to the enhanced performance of teams.

Source: Stubbs (2005, p. 23)

The idea of team emotional intelligence has instinctive interest, and researchers have formed theoretical links since the 1930s that may have formed group spirit or collective intelligence. In keywords, it is the combined effort of group members' personal intelligence that would bring synergistic outcome (Klimoski & Mohammed, 1994). Compared with individual emotional intelligence, the conceptualization of emotional intelligence at team level attracted researchers to further enhance the theoretical and

practical understanding of Team EI in order to analyze the concept in an appropriate manner.

The study by Ashkanasy (2003) proposed a concept that collective emotional intelligence is superior to the sum of fundamental individual emotional intelligence. To examine the influence of team EI on team performance, Jordan, Ashkanasy, Härtel, and Hooper (2002) conducted a research by including participants possessing different scores of emotional intelligence (EI). During the study tenure of ten weeks, their investigation revealed that participants with lesser EI scores tend to reveal lower results for problem solving and performance outcomes. However, after completion of the ten-week study, the score of lower EI participant was similar to that of the team with the highest overall EI rate.

Jordan et al. (2002) argued that the score increased due to the training contribution for all team members within ten weeks, but Ashkanasy (2003) framed his perception according to this study to discuss the concept of the possibility of team level emotional intelligence in subsequent research articles. Ashkanasy (2003) further advocated that group level emotional intelligence may develop in groups over the time that can bring synergies in them. As a result, groups with a lower aggregate EI appear to score well as the group works with aggregation of team members EI. The findings of Ashkanasy (2003) shown that Team EI is more than the sum of the individual members of the group.

Literature suggests that there are two main concepts of Team EI. According to one opinion, Team EI is the skill developed from the group's socialization, from the establishment of standards and development of internal relations among team members. Another concept of Team EI is similar to collective thinking; the group understands its purpose with other interactive systems and well aware of their association with the external surroundings.

The scholarly work by Druskat and Wolff (2001a, p. 132) conceptualized Team EI “*as the ability to develop a set of norms that manage emotional processes so as to cultivate trust, group identity, and group efficacy*”. This conceptualization of Team EI emphasizes the utilization of social skills (including EI) in a group to develop emotional management standards (collective agreements) so that organizations can effectively solve their tasks through team working. The emotional management norms and standards that lead to a successful combination of output is one of the conceptualizations of Team EI also known as Team Emotional Skill (Druskat & Wolff, 2008).

Further Gantt and Agazarian (2004) provides another perspective of Team EI. They define Team EI by advocating the system's understanding of the organization. A person's system can be associated either by individual means or by the group of people, which utilizes its thoughts, cognitive knowledge, and conscience, making emotional decisions while performing tasks. EI in a system is defined as “*a system's ability to discriminate and integrate information energy (cognitive and emotional) in the service of the goal of the context*” (Gantt & Agazarian, 2004, p. 162). In this definition, Team EI exists because of the circumstances, structure of the group, and energy of the system it creates, so the Team EI within team exists due to the interaction of the team, with other external systems and is not developed by the group's individual members (Goyal & Akhilesh, 2007). Therefore it is inferred from the discussion that the emotional intelligence prevails at individual, group and organizational level and the acknowledgment of each level progresses the teams and organizations cognitive resources.

The definition of Druskat and Wolff (2001a, 2001b) serves Team EI as a function of the group's ability to develop community norms in order to successfully accomplish group tasks and confront the challenges of the teams. Whereas, Gantt and Agazarian (2004) perception of Team EI is the end product of the collective instrument. It is not merely an

individual's function in the team rather team EI is a collective process that enables the team mechanisms to gain awareness in regards to its association with a broader scope of organizations and interactions with other stakeholders which influences the team. For group-level emotional intelligence, the individual team members bring vitality to the team environment which acts as a contributing energy factor for the whole team. Hence the teams consider itself as a part of the associated organizations and understand the importance of their existence in the context of organizations.

Gantt and Agazarian (2004, p. 147) introduce an emotional intelligence model in which they not only consider individual emotional intelligence, but also the emotional intelligence of the team and organization itself. According to them, the individual contributes to the energy needed for organizational emotional intelligence. However, it is also important to note that the organizational emotional intelligence is the dynamic output of the function, structure, and energy of the organizational system, rather than individual's property. A system-centric framework based on emotional intelligence enables emotional intelligence, including individuals, work teams, and organizations themselves, at all system levels in the organization.

Cherniss and Goleman (2001) argue that the conception of individual emotional intelligence can be multidimensional phenomena which comprise of smaller concepts of the broader term Team EI. Perhaps it is the reason that team emotional intelligence benefits from some multilayered understandings. Team EI may have a vision from the inside (norms and standards) as well as a vision from outside (system-oriented construction and implementation).

Team emotional intelligence can integrate the group members' ability to successfully develop the standards at the group level and further it refers to the collective intelligence that which can be a source of positive energy for the entire team and subsequently to the

organization. Goyal and Akhilesh (2007) pointed out that by using the conceptualization of the individual emotional intelligence of Mayer et al. (2000), Team EI should be involved in emotional and cognitive perception, emotional understanding and management ability. In order to consider the team EI as a multifaceted concept, it is mandatory to re-examine these capacities from the "internal" normative aspects of construction and the system-based "external" understanding. Therefore, Team EI covers the following aspects:

- **“Emotional perception”**: The aspect of emotional perception implies towards the team members ability to interpret the accurate emotions of its members in a collective manner. The vision of the external system will imply the collective capacity of the group to interpret the emotions external stakeholders interacting with them and the ability to perceive the organization's dominant "emotions".
- **“Facilitating cognition”**: The internal view means that the group has the ability to promote the emotional identity of the group members so that all members of the group should be mindful of their colleague's emotions. Further, a peripheral view refers to the point that the emotional state of the group could be sensed to others whom interaction takes place.
- **“Emotional understanding”**: The internal perception of the emotional understanding describes the team ability to "understand" the general emotions of the group. The vision of the external system means that the team is able to understand its collective emotional state and the emotional state of other interacting stakeholders of the team.
- **“Emotional management”**: The inner view will mean that the Group's ability to manage emotions will enable the group to successfully meet the challenges facing the group. The external view will allow the organization to manage the emotional state associated with other systems that interact with it.

From the literature discussed above regarding team emotional intelligence, it is inferred that team emotional intelligence is established competency. Such competencies reflect abilities and behaviors that permit team experiences, acknowledgment, comprehension, and administration of feelings so the gathering can deal with its own enthusiastic state and comprehend its unique situation, reason and communication with the superior gathering of workers working in organization boundaries. The explained conceptualization of Team EI “*a set of abilities that allow for emotional management within the group (i.e. the ability to create group level norms that allow the successful management of emotions in the group so that the group is able to address its tasks and assigned outputs); and a systems concept for the group to understand its purpose and relationship with other emotional systems in the organization as well as contribute to the emotional state of the group and the organization*” (Ghuman, 2011, p. 425). As per the investigation of Ghuman (2016), increasing the team’s ability to perceive and identify emotions means that the team can apply its overall EI to the desired task; therefore, the greater the team's emotional capacity, the prominent its effect on team performance.

Vanessan Urch. Druskat and Wolff (1999, p. 9) defined the team-level emotional intelligence as “*it is a process of influencing and managing emotional processes in a way that affects the effective ability and develops social capital and leads to performance.*” Druskat and Wheeler (2003) define the Team EI team as a member’s emotional intelligence who shares their norms and standards while dealing with the emotional process that prompts production of trust, team identity and team effectiveness. The high EI team builds a positive cycle through its specific standards and norms; this, in turn, affects the emotional process. The team needs to develop emotional intelligence norms to build trust, group identity, and teamwork among team members. This results in full involvement of the team's internal staff (Druskat & Wheeler, 2003).

The intelligence of the term refers to the ability of a team to build certain standards and norms for managing emotional processes (Druskat & Wolff, 2001a). As per Emotional Competent Group Norms (ECGN) theory, the group's specific norms and standards are group's EI indicators that help in deciding whether this group works as a high-performance team or not (Goleman et al., 2013). *"ECGNs refers to the attitudes and behaviors that become habits which support behaviors for building trust, group identity, and group efficacy"* (Feyerherm & Rice, 2002, p. 345). Considering the importance of emotions in the workplace, it's astonishing to identify that emotional intelligence possesses abilities to understand and analyze capabilities of employees working in the workplace (Jordan, Ashton-James & Ashkanasy 2006).

Emotional intelligence incorporates four capabilities, emotional awareness (oneself and others), emotional management (oneself as well as other people), emotional understanding (comprehension of emotional cycle and progress) and emotional facilitation (emotional generation and advancement). Mooney, Holahan, and Amason (2007) oppose that the ability of emotional intelligence is a central factor to strengthen the relationship among the team members. While emotional understanding is an important factor as it enables the team members to deal with their own as well as emotions of other people. Further, the dimensions of emotional awareness and emotional management have a substantial influence on performance of teams, as such emotional management abilities facilitate building fruitful relations with coworkers (Jordan & Troth, 2004), which helps teams in effective communication and timely decisions making (Pelled, Eisenhardt & Xin 1999) and sponsors the solution of functional conflicts, rather than conflict resolution in the team's dysfunction (Jordan & Troth, 2004).

2.6.1 Dimensions of Team Emotional Intelligence

This research study conceptualizes Team EI as suggested by Jordan and Lawrence (2009) based on the Mayer and Solvay models (1990). This concept suggests that the phenomena of emotional intelligence operate in a team environment by involving the following four dimensions

2.6.1.1 Awareness of Own Emotions

The dimension of awareness of own emotions (AWO) refers to individual team member ability to be well conscious of his own emotions that are changing with the changing moments and situations. The dimension of “emotional self-awareness” is identified as a contributing factor to effective leadership (Sosik & Megerian 1999) and predicting team performance (Jordan & Ashkanasy 2006). As the emotions perceived by individuals revealed their ability to discuss and disclose their emotions they experience. Individuals with a strong sense of emotion will trigger a reasonable response even to the extreme emotions hence suppress negative emotions which facilitate cordial relationships with their team colleagues (Wolff, Pescosolido & Druskat, 2002).

2.6.1.2 Management of own emotions

Managing their emotions implies the ability of individuals to connect or disengage emotions according to their utility in any particular situation (Mayer & Salovey, 1997). Self-management of emotions has been recognized as an essential aptitude for workers. Jordan and Troth (2004) demonstrate that self-management of emotions is considered an important predictor in solving short-term problems leading to enhanced team performance. Expressing emotions in the working environment is an anxiety-moderating conduct, and it is reasonable to say that expressing emotions do not influence the relationship.

2.6.1.3 Awareness of Others Emotions

The third dimension of being aware of others emotions reflects how team members identify and analyze the emotions their team colleagues Elfenbein, Polzer and Ambady (2007) found that an ability of a team member to identify the emotions of other team members have sustainable impact on the team working which can be estimated from different team objectives. Hence it is inferred that the emotion recognition by utilizing human senses produced by team members is imperative for disabling the negative emotional reactions.

2.6.1.4 Management of others' emotions

The last dimension of “managing others' emotions” is a debatable ability for the teams. In certain situation, it is the mandatory ability for managing the emotions of the team workers to ensure that the working relationship is maintained. For example, an immediate response to employee anger may lead to retaliation, which may aggravate the situation. Research shows that the managing the emotions of the angry employees in a team environment have had a positive impact on the job (Fitness 2000). Encouraging positive emotions, such as positivity, can lead to positive emotional communication among employees, thereby increasing positive interaction between team members (Barsade 2002) and influencing motivations (Christie, Jordan, Troth & Lawrence, 2007).

Summing up the discussion on the dimensions proposed by Jordan and Lawrence (2009), employees possessing abilities of improved “emotional awareness and emotional management” will contribute effectively to their respective teams by improving their ability to communicate with their colleagues and ensures effective emotional attitude and manner (Druskat & Wolff, 2001a). In order to accomplish this effective emotional attitude, individuals working in teams have to concentrate on their own emotions and focus their team members (other emotions) to respond effectively.

2.6.2 Leader's Emotional Intelligence, Team Emotional Intelligence, and Team Performance

Team leaders play a significant role in the success of the team they lead. Consequently, they not only responsible for their own emotions, but also for the emotions of the team they lead and the team's clients (Neil et al., 2016; Rafaeli & Worline, 2001). In order to influence and mobilize people, the leader must have the knowledge and skills of emotional skills (Boyatzis, Stubbs, & Taylor, 2002). These skills are the potential features of a person who leads or produces an effective and outstanding performance. Because the team is social in nature, it is justified that emotional intelligence is an important factor in the effectiveness of team leaders. This is important for the success of managers and leaders (Gardner & Stough, 2002; George, 1995, 2000; George & Bettenhausen, 1990).

The research on team level emotional intelligence and its subsequent impact on team performance is relatively low. While it is observed that emotional intelligence is significantly associated with individual performance (Boyatzis, 1982) in the context of personal cognitive interdependence tasks. The team working is considered as an inherent collective approach, therefore the role of emotions is imperative for the team performance (Chang, Sy, & Choi, 2012). The extent to which the team members develops and utilizes the ability of emotional intelligence is linked to the performance of team (Druskat et al., 2013).

Understanding the factors that contribute to the development of the Team EI will promote the development of the team performance. The study by Koman and Wolff (2008) examined and found the positive mediating role of team emotional intelligence on the relationship amongst Leader EI and Team performance. The recent study by (Urch Druskat, Wolff, Messer, Stubbs Koman, & Batista-Foguet) advocated that team EI creates positive social interactions within the team which lead to enhanced team performance.

Moreover when the leader helps the team to develop the norms, it leads to the development of culture which consistently encourages team members to display supportive and caring attitude. If the development of the norm reflects the leadership of the team, it may be thought that the team's emotional intelligence competencies will reflect the ability of the team leader who possesses emotional intelligence (Koman & Wolff, 2008).

Earlier research (Dickson et al., 2001; Druskat & Wheeler, 2003; Kimberly, 1980; Schein, 2010) revealed that team leaders influence the developments of group norms, furnish the conduct of team members, and the culture of teams they lead. However, limited research links team leadership to performance. Furthermore, the empirical studies found that due to the conducive team culture leadership affects the motivation, efficiency, and performance of the teams (Dickson et al., 2001; George, 2000; Schein, 2010; Sivasubramaniam, Murry, Avolio, & Jung, 2002).

The studies revealed correlation amongst leader's EI and team performance (Druskat, Wolff, Koman, & Messer, 2003; Stubbs & Messer, 2002). Moreover, Jordan and Troth (2004) and Offermann et al. (2004) also inferred the same relation and found that teams possess higher emotional intelligence exhibits higher performance. The study by Koman and Wolff (2008) found that team performance enhances in the presence of Emotionally competent group norms among the team members which is further endorsed by many studies (e.g. Chang et al., 2012; Druskat & Wheeler, 2003; Stubbs & Messer, 2002). Therefore, it is inferred from the literature discussed that the emotional intelligence of leaders leads to the development of EI ability at team level which further leads to team performance.

2.7 Team Culture

Organizational culture is often cited as an important driving force for individual, team and corporate success in management and psychology journals (Barney, 1986). As it is an imperative issue in scholarly research and management practices since it is the most crucial factor while deciding organizational achievements (Jacobs et al., 2013). Organizational culture can be portrayed as an organization's expected and desired behavior of the employees, which is consciously and unconsciously encouraged. It frames strong bond that holds the organization together and motivates workers to stick with the organization and to perform their duties in a well-focused way. Therefore it is essential in improving the organization's basic competencies and operations.

The literature review of culture suggests that different sub-cultures exist in organizations at different levels considering different functions and business context. The conception of organizational culture symbolizes an anthropological metaphor used in research on organizational behavior, business, and management (Morgan, Gregory, & Roach, 1997). At the beginning of the twentieth century, social anthropologists portray the process of socialization through family, society, training, religion, education and other establishments (R. Williams, 2014). This idea has some relevance for organizational study rooted in the Hawthorne studies (Roethlisberger & Dickson, 1964). These studies examine how the informal “social dimension (culture)” between organizational structure and performance is regulated and how these aspects are manipulated to influence the work and employees’ commitment. During the postwar period, some researchers, including behavioral economists (Cyert & March, 1963), industrial sociologist (Selznick, 2011), Organizational psychologist (Schein, 1985) accentuated the significance of culture in the development of organizational behavior, and therefore performance (Davies, Mannion, Jacobs, Powell, & Marshall, 2007).

These scholars recommended to explore the perspective of culture in relation to studying organizational performance at different levels but the operationalization of this concept is cumbersome as “Organizational Culture” has been theorized and amplified by numerous definitions. The studies investigating the concept of organizational culture are rooted deep to explore the accepted shared patterns of standardized behaviors displayed by the employees. Hence culture is concerned with the common and accepted ways of doing things within the organization, as well as a common way of thinking and understanding about the organizations that penetrate between members” (Davies et al., 2007).

Earlier studies revealed that (Deal, 1982; Schein, 2010) organizational culture is considered amongst those significant factors that contribute to the effective employees and organizational outcomes. Nevertheless, the ambiguity in broader organizational horizons and establishment of departmental units and self-managed teams, the sub-cultures of the concept of team culture is of much significance to employees (Adkins & Caldwell, 2004). Team culture involves “*distinct clusters of understandings, behaviors, and cultural forms that identify groups of people in the organization*” (Trice & Morand, 1991, p. 1). The prior literature on organizational culture has acknowledged the presence of diversified sub-cultures at team level within organizations (Hofstede, 1998; Jermier, Slocum Jr, Fry, & Gaines, 1991) and affirmed significant relationship between team cultures and employee job attitudes (Adkins & Caldwell, 2004; Lok, Westwood, & Crawford, 2005), but minimum is empirically investigated in relation to the association of team culture and team performance (Shin, Kim, Choi, & Lee, 2016).

Before heading to team culture, it is important to get command over the concepts of culture and organizational culture. As team culture is the offshoot of organizational culture. According to the literature review, Culture has many definitions and meanings

that have been difficult to unpin (Braithwaite, Hyde, & Pope, 2009; Spreitzer, 2003). Anthropological and sociological methodologies have a tendency to describe culture as an assembling of attitudes, rituals, convictions, traditions, values, and customs shared by a common group (Alvesson & Willmott, 2002; Ashkanasy, Wilderom, & Peterson, 2000). When it comes to the culture of the team which may be developed considering the political, geographical, ethnic, religious or other dynamics of the teams. The characteristics of a defined team can be embodied in symbols, languages, and cultural relics, verbal and written traditions. The central premise of exhibiting different team cultures is the creation of an exclusive identity that provides a means of distinguishing an organization member from the team members (Schein, 2010). This perception suggests that culture provides medium to synchronize teams and their subsequent performance.

Team and organizations comprised of multicultural workers and groups so the cultural differences can be explained by the difference in the way people work with each other and the differences between them. Thus, maintaining a set of establishments and techniques that are different from other working environments. Therefore, the organizations are composed and based on the beliefs of their employees that they hold, and making them different (Jacobs et al., 2013).

The culture observed by (Nazir, 2005) and (Silverthorne, 2004) is indispensable for adapting employees to the organizational environment and making them comfortable with it. Thus, the organizational culture is considered to be the unique pattern of common values, customs, norms, convictions, standards, desires, beliefs, expectations, socialization and presumption of members in the organization that makes it different than the usual way of other organizations.

Culture can have an impact on the effectiveness of integrating shared beliefs, values and norms while working, which in turn contribute to shaping the way members of the

organization interact and mutually commit. Thus, cultural values are helpful in effective decision-making; declaration, response and learning from errors; learning to work in teams; and cross-sectoral synergies and innovations (Shin et al., 2016). Moreover, culture articulates the core values of the organization which contributes to shaping the preferences of its members, which not only affects economic decision-making, but consider justice, promote ethical principles, and also employees' performance in different ways. Finally, the culture can have a substantial impact on the economic as well as social aims and objectives pursued by the organizations. As a result, "corporate culture" concerns not only to their employees but also their quality of living conditions. Thus corporate culture diverts their interest from profit maximization and economic goals and focuses on its employees' needs (Jacobs et al., 2013).

The success of any organization relies on its teamwork. Team culture can be characterized by emergent simplified rules, regulations, specifications, standards, expectations, and roles that are shared and promulgated by team members (Earley, 1999). This emerging culture leads to the development of shared identity hold be the specific teams and groups (Sağ, Kaynak, & Sezen, 2016). The culture of a team can be influentially resulting from team members' overlap and pre-existing features or newly developed team interaction models. As a result, team culture serves as a basis for self-assessment by team members and facilitates collaboration for enhanced team performance.

The study by Moultrie, Nilsson, Dissel, Janssen, and Lugt (2007) emphasized the significance of deliberate intentions on the team working as it leads to strengthening innovative capabilities of the teams due to improved visual or non-visual communication, and informal interaction. Although the relationship has not been empirically examined, the team culture of any particular team may affect its way of working due to numerous

explanations. Firstly the norms and beliefs shared in the workplace promote the coherent behavior among team member so that they can work together to achieve common goals (Charles O'Reilly, 1989; ORilly & Chatman, 1996). Secondly, team culture dwells in teams to ensures that team members perceive and interpret organizational events in a similar fashion, which give assistance to the unit members to interpret and find the solutions to problems together (Schein, 2010). Finally, it contributes to work attitudes and enhance employees' performance by reducing vagueness and resistance in the workflow, as well as articulates social expectations and norms (Charles O'Reilly, Chatman, & Caldwell, 1991). Moreover, it gives social identity to the employees (Ashforth & Mael, 1989).

Researchers; Quinn and Rohrbaugh (1983), postulates the existence of four different types of sub-cultures which are (1) goal oriented, (2) system resources, (3) participation satisfaction and (4) internal processes. All four sub-cultures will contribute differently in originating the team performance. In a similar fashion, these four different typologies of team culture according to competitive values framework is focused on the extent of control or needs to be flexible and whether the culture is externally focused or internally.

A culture with "internal goal flexibility" is called a culture of human relationships. It emphasizes teamwork, cohesion, and employee engagement. A flexible and export-oriented culture is called an open culture of the system. This culture emphasizes dynamic entrepreneurial orientation, adventure innovation. On the other hand, the internal process culture is focused on internal goals, characterized by efficiency, consistency, rules, and stability. Finally, a high degree of control with external focus is a rational purpose of culture, emphasizing the results, competitiveness and customer concerns.

Literature of organizational team culture proposes that diverse subcultures may coincide within organizations. These are generally relying upon the geological area,

serviceable coordination and work nature (Bloor & Dawson, 1994). Such as cultures vary in the department in a way the accounting department has different cultures as compared to the culture of the marketing department. Conversely, in all situations, the team cultures may not be immune to the prominent culture exist in organizations (Meyerson & Martin, 1987). Because in organizations the attitudes and behavior of the team members may or may not be influenced by organization cultures due to the frequent interaction of employees and their close working groups across the organization (Lok et al., 2005; Ostroff, Shin, & Kinicki, 2005). Further, the team members are likely to create meaningful shared patterns from the events occurred in teams (Morgan & Ogbonna, 2008). This leads to collective consciousness process which forms a subculture in the workplace, and it differentiates the subculture of an organization from other organizational units (Sackmann, 1992; Maanen & Barley, 1982). Similarly, Hofstede (1998) argues that social interaction, communication, interdependence, and leadership within an organization can help in the establishment of subcultures. According to Chen (2006), team culture is inferred as a shared vision of team members' normative beliefs and social expectations in the "work team".

Previous literature suggests that one of the key issue highlighted by scholars of culture is the culture that exhibits powerful, timeless, unconscious, personal and team influence (Schneider, Ehrhart, & Macey, 2013). An organization where clan culture exists, their members act as a family, follows specific customs and traditions, experience teamwork, self-management and social influence (Gibson, Ivancevich, & Donnelly, 1973). Employees working in such culture celebrate their success together and strive hard for their benefits. A flexible control structure exists in an organization where clan culture exists. It plays a crucial role in team performance, as it helps to maintain emotions of employees while knowledge sharing. Moreover, it influences the expression as well as suppression of employees' emotions. Thus, effects team performance.

Ostroff, Kinicki, and Tamkins (2003) pinpoint that empirical research on the relationship between organizational culture and performance is limited because they often lack the theoretical basis for explaining how organizational culture contributes to organizational performance. Similarly, the team's culture and the team's performance intervention mechanism is also unclear. The study by Sackmann (2011) points out, the concept of cultural expression is implicit in the conceptual introduction of organizational science and is reinforced by managers who are looking for another performance management tool. Goleman (2001) found that among all the factors that affect the core performance of private organizations, the emotions and behavior of leaders are most influential. This means that there is a strong chain reaction, where the mood swing, emotions and behavior of the leader drive all other people's feelings and behaviors. There is an interrelated relationship between team performance and team culture.

2.7.1 Team Climate Inventory

The current study uses the conceptualization of “Team Climate for Inventory” for healthcare institutions based on the model of Farr and West (1990), which consists of four factors. According to this model, the effective functioning of the team and team performance depends upon: “vision”, “participative safety”, “support for innovation” and “task orientation”. The model of Farr and West (1990), the participation of team decision making processes increases the chances that members will have become more autonomous. Therefore, new ideas become flourished which are more practical to problem-solving techniques. Efficient participation is reinforced through secure interpersonal security (participative safety). Whereas, the performance of innovation also requires the team's commitment to achieving the highest standards of performance of tasks (Task-oriented) and innovative ideas to provide clear and clear support (support innovation) (Ceschi, Dorofeeva, & Sartori, 2014).

2.7.2 Dimensions of Team Climate Inventory

The significance of utilizing conception of team climate inventory for this study lies in the rational pattern of climatic factors in relation to team performance is revealed by the previous literature on team-based research. The brief description of the team climate inventory (Anderson & West, 1990) revolves around the four drivers such as (1) “vision”, (2) “participative safety”, (3) Support for innovation and (4) task orientation. The dimensions of team climate inventory explained in the following section:

2.7.2.1 Vision

Vision refers to the notion of *“valuable outcome which represents higher order objectives and motivating forces in the working place”* (Farr & West, 1990). Teams envisioned with focused objectives are in better position to develop innovative work techniques which are in accordance with the vision because of their focused and directive orientation. Farr and West (1990) argue that the *“vision of the task force has four components: clarity, visionary nature, attainability, and sharedness”*. The component of “clarity” elaborates the clarity of the vision which can be easily understood. The extent to be visionary reveals that the visual results are important to the team members which deciphers the members’ commitment towards team objectives. The third component of “sharedness” explains the degree of acceptance to which the visual achievement of the team is widely accepted by individuals. Vision should also be practically attainable in order to promote the innovative environment. If the goal is failed to achieve then it means either the goal is demotivating to employees or they did not find practicality in it.

2.7.2.2 Participative safety

The dimension of “participative safety” is characterized as *“a single psychological construct in which the contingencies are such that involvement in decision-making is motivated and reinforced while occurring in an environment which is perceived as*

interpersonally non-threatening” (Farr & West, 1990, p. 311). The author postulates that massive participation and exchange of information amongst team members led to the improved decision making and participants invest their energies in making fruitful decisions. Thus, provides new ways of working and improving ideas. This leads to the active participation of groups which is the source of trust and support.

2.7.2.3 Task orientation

The dimension of task orientation referring to “*a shared concern with the excellence of quality of task performance in relation to shared vision or outcomes, characterized by evaluations, modifications, control systems and critical appraisals*” (Farr & West, 1990, p. 313). Within the group; the task-oriented factors within teams are demonstrated by emphasizing individual as well as team responsibilities; regulating such systems which are used to evaluate and modify performance. Moreover, the factors include replicating the team's work methods and performance; team consultation; collective monitoring; cooperation and feedback; assessing ideas and appraising performance; and focus on maximizing the quality of mission performance. Thus, these factors describe a general commitment to the outstanding performance of team mission, while supporting climate improvements in established policies, procedures and procedures.

2.7.2.4 Support for innovation

Support for innovation varies according to the team, as they are clarified and approved. West believes that it can be clearly reinforced by including them in organizational manuals, quality policy, and by documenting procedures. It was advocated that essential conditions for collective innovation requires sufficient support, not just to “provide support”, but to “provide positive support” for innovative behavior. Moreover, it is imperative to consider factors which influence team culture. The literature (e.g. Jong, Dirks, & Gillespie, 2016) reveals factors that affect team culture covers three levels. It

covers factors that affect the team culture at the intragroup level, self-member level and group design level. First of all, “*intragroup level*” is under discussion. The constructs which affect intragroup relations are communication and innovation. In the present era, evidence of the positive impact of communication and innovation on team work’s performance is the basis for achieving the group's goals. Communication is of central importance for timely decision making which influences team performance. Hence, acknowledging the importance of active communication provides comprehensive reason and facilitate the team to understand the difference in how teams become efficient and effective, while other teams do not. Consequently, many researchers have devoted their studies to the subject of communication between team members and working groups. The research studies by McKinney, Barker, Smith, and Davis (2004) argued that the team achieves effectiveness through implicit communication factors such as normative and organizational culture. Further, the study by Bazarova and Hancock (2012) found a complementary effect. They infer the positive results, how the previous team results become more effective by communication and collaboration among members, including task effort, social-emotional communication, communication procedures, and team performance at the end of the account (Ceschi et al., 2014).

In addition to communication, innovation and creativity also affect the performance of teamwork. Research on innovation and creativity focuses on advocates of innovation and creativity, not its consequences (Shalley, Zhou, & Oldham, 2004). Most empirical studies of team-level relationships between creativity, innovation keenness and performance have used cross-sectional model for objective performance evaluation (Sarin & McDermott, 2003). Important evidence in recent innovation studies shows that creativity is an important interpreter (in a Korean insurance company) of team performance over a six-month period (Sung & Choi, 2012).

The second level .i.e. *self-member level*, heterogeneity and homogeneity among team members become the important factors that affect team performance. Literature reveals that performance of the team also appears to be affected by the heterogeneity of the team members. (Jackson, May, & Whitney, 1995) on the assessment of organizational diversity and summarizes empirical evidence on the links between diversity (i.e. heterogeneity within the group) and the performance of the team from multiple disciplines relevant. Their study proposes that heterogeneity is directly proportional to team creativity and decision-making. Bantel and Jackson (2007) suggest that the organizational innovations of the banking sector were positively related to heterogeneity of functional expertise among the management team members (Ceschi et al., 2014).

Thirdly, the *group-design level* and the factors which affect them are structure and size of teams. Campion, Medsker, and Higgs (2006) reported one of the main research related to the team's performance and the structure of the working group. They studied working groups in a business services firm and found a complete evidence of the relationship between performance and 19 design variables, divided into five categories: including teamwork design and size. The study by Campion et al. (2006) revealed that team size has a positive correlation with team performance. This is initiated by Thomas and Fink (1963) in a research article, "Effects of group size" infers that the increased team size leads to enhance team performance. Other researchers (Ingham, Levinger, Graves, & Peckham, 1974; Taylor & Faust, 1952; Watson, 1928) found a significant positive correlation between the size of working team and team performance (Ceschi et al., 2014).

2.7.3 Empirical studies - Team culture and Team performance

In literature, numerous empirical studies are found investigating the relationship between culture and performance. In fact, some of the famous investigations are rooted in 1990's which revealed substantial importance investigating the concept of "strong

culture" and are described as a broad set of shared and, strong norms and values throughout the organization (O'Reilly & Chatman, 1996). Such studies suggested that strong cultures are related to revealed the effective performance of a large number of entities (Deal & Kennedy, 1999; Denison, 1990). This assumption has framed the perception that the teams and organizations are benefited by the energetic man powered as they commit themselves to common goals. The literature can be classified on basis of strong and weak cultures as it provides evidence to claim that "strong culture" supersedes "weak culture" (Chatman & Cha, 2003). Thus, literature provides the strong evidence that strong corporate culture improves organizational performance by promoting internal behavioral coherence. Such conduct has a normative aspect because the mechanisms that allow change of organizational culture are closer to success. Also, they have been extensively discussed and applied cultural changes in order to improve performance (Barney, 1986).

Empirical studies in the context of healthcare are investigating the team culture to determine the cultural relationship amongst the healthcare professionals and their performance. The study by Stephen M Shortell et al. (1995) found that the association between organizational culture and team performance in terms to determine quality services. The quality of staff attitude delivering patient care services and satisfaction with clinical information systems, the efficiency of the supplier's team and the effectiveness of the organizational structural change of the organization and patient satisfaction (Jacobs et al., 2013).

Further studies investigating the senior management team culture in the UK and Canadian hospitals have shown evidence supporting the dominant management culture and a range of performance areas (Gerowitz, Lemieux-Charles, Heginbothan, & Johnson, 1996). Another cross-sectional study by (Zhou, Bundorf, Chang, Huang, & Xue, 2011)

conducted in Chinese employee's Public hospitals examined the relationship between organizational culture and hospital performance. All such studies discussed above endorsed that certain areas of performance can be improved and linked with cultural aspect but all these studies are analyzed cross-sectional performances (Jacobs et al., 2013).

The empirical evidence is lacking in regards to investigating the role of team culture in enhancing the performance of healthcare teams. One of the objectives of this study is to extend the previous cross-sectional analysis (Davies et al., 2007), to examine the role of team culture in interdisciplinary teams performance. This study relates various performance indicators and key features of the healthcare institutions to examine the relationship between culture and performance and see if organizational values are important in a particular dominant culture, which is excellent for the organization over a period of time (Jacobs et al., 2013).

Concluding this, it is inferred from the above literature that team culture not only promotes the knowledge sharing by enhancing social interactions but also develops a culture in which team members enables to establish strong emotional intelligence competencies. All these factors collectively lead to higher team performance.

2.8 Knowledge Sharing

The knowledge sharing is another mediating variable of this research study. In addition to other variables, this research examines empirically how the phenomena of knowledge sharing influence the performance of teams working in the healthcare sector of Pakistan. The construct of knowledge sharing is used as mediating variable amongst the independent and dependent variables of the study.

Knowledge is considering as a social phenomenon in which people are directly involved (Brown & Duguid, 2017). The crucial role of knowledge sharing is of substantial importance in the organizational success, especially knowledge sharing is considered to be one of the key factors of teams and organizational effectiveness (Quigley, Tesluk, Locke, & Bartol, 2007).

The concept of knowledge sharing which comes under the umbrella of knowledge management is often claimed to be an important part of building competitive advantage. Most organizations are not sure whether the performance improvements achieved through the implementation of knowledge management or it is just a fad (Jayasingam, Ansari, Ramayah, & Jantan, 2013). This study intends to provide empirical verification of the extent of KS on the relationships amongst leader's emotional intelligence, team culture, and team performance.

In the arena of knowledge-intensive professional services, the resources of knowledge are considered the core of competitive advantage (Alvesson, 2004). The component of knowledge assets provides the intellectual direction of "knowing what" or "know-how". The sole knowledge of individuals is not enough to create a competitive advantage. The organization can use personal knowledge only through sharing of collective knowledge (Swart, Kinnie, Rossenberg, & Yalabik, 2014). Conversely, the process of knowledge sharing depends on the whims of employees. Previous studies revealed that employee attitudes, such as level of engagement act as the heart of personal control and sharing of knowledge among them (Hislop, 2003; Lin, 2007). However, professionals are not only committed to their organizations which hire them, but also to the team they work with and to their clients (Ravishankar & Pan, 2008). In this study, it will examine that how knowledge sharing takes place among team members and what will be its effect on team performance.

Knowledge sharing can be clearly defined as interpersonal communication involving others' communication and knowledge. As evident from the research, the knowledge sharing process has not occurred in a vacuum but has always been integrated into the context of its occurrence (Nonaka & Takeuchi, 1995; Orr, 1996; Wegner, 1987). However, recognizing that the integration of knowledge sharing in context gives little understanding of how and why knowledge sharing is systematically changed in different contexts. In fact, since Argote (2005) explains the knowledge management situation and its different approaches, it is necessary to accumulate the results of existing research to promote our understanding of knowledge sharing. Because of these arguments, the current study is inclined to investigate the notion of "knowledge sharing" in teams. Further, it will examine its mediation in relation to other constructs like team culture and team performance (Sergeeva & Andreeva, 2016).

The resources of knowledge can be a source of competitive edge in uncertain and turbulent circumstances. The organization is taking massive initiatives and capitalizing funds to boost knowledge management practices (Wang & Noe, 2010), nonetheless the inadequate sharing of knowledge restraints the execution of such initiatives. The knowledge sharing is one of the most influential ways of disseminating information most the organizational workers. For that particular reason, this construct receives substantial attention from the scholars (Vong, Zo, & Ciganek, 2016).

The fundamental of knowledge management lies in its ability to exchange knowledge (Liao, Fei, & Chen, 2007) for helping others in problem-solving situations, develop new ideas, implement strategies, guidelines, rules, and procedures using personal experience and details of specific tasks (Wang & Noe, 2010). The sharing of knowledge is an extremely valuable organizational resource (Braun & Avital, 2006; Marchewka, Liu, & Kostiwa, 2007), but the problem lies when people in the organization not willing to share

their knowledge. A person's willingness to exchange knowledge with other workers is the main element of knowledge sharing mechanism (Islam, 2012).

The flow of knowledge within the organization is hard to reconcile. The organizational infrastructure, hierarchy, organizational environment and culture are the main dynamics of sharing knowledge. It is also examined that there are also several ways to share knowledge within an organization, including contributions to information databases, formal as well as the informal interaction between teams or units within or between organizations and shared practice community knowledge (Bartol & Srivastava, 2002; Kim & Lee, 2006).

As the field of business progresses and competition intensifies, the organizations not only depend only on their accounting value, but also on the contribution of its knowledge (Lin & Tseng, 2005). Most scholars highly suggest that the adoption and execution of knowledge management practices are the basis for building organizational competitive advantages such as apprehending and sharing best practices, effectively managing customer relationships and providing competitive intelligence (Davenport & Prusak, 1998; Ming Yu, 2002; Omar Sharifuddin bin Syed-Ikhsan & Rowland, 2004). Organizational knowledge is the creation and determinant of employee behavior, as well as the inputs and outcomes of organizational operations (Davenport & Prusak, 1998; Starbuck & Hedberg, 2001; Wiig, 2000).

In the beam of previous literature, two definitions of knowledge, which are widely publicized are discussed here. Davenport and Prusak (1998), believes “*knowledge to be a fluid mix of framed experiences, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information*” (p. 5), whereas Nonaka and Takeuchi (1995) conceptualizes” *knowledge as a dynamic human process of justifying personal belief toward the truth*” (Nonaka &

Takeuchi, 1995, p. 58). Thus, the knowledge accumulates in the organization is a dynamic, complicated, and multifaceted combination of intellectual, emotional, social, and behavioral order.

Knowledge sharing refers to the interpretation of how different systems are operating and functioning according to the organizational context. It is the individual and social construction of organizational assets. Its direction of action makes a platform for organizational performance (Pais & Santos, 2015). Thus, knowledge management is referred as *“a strategy for managing organizational knowledge as a corporate asset and harnessing processes such as creation and acquisition, storage, share and dissemination, retrieval and use of tacit and explicit knowledge. It is about managing the processes and practices that act upon tacit and explicit knowledge”* (Cardoso, Meireles, & Ferreira Peralta, 2012, p. 269). Managing the resources of knowledge indicates achieving organizational goals and making organizational factors effective by evaluating the positive, constructive and irreplaceable roles of human factors. According to Birkinshaw and Sheehan (2002), Carrion, Gonzalez, and Leal (2004) and Snowden (2000), knowledge management operates through procedures which are concerning with knowledge. These procedures are systematized in steps of set patterns and behaviors that focus on critical knowledge given in an organizational context (Pais & Santos, 2015).

Despite the positive impact of knowledge management, many researchers argue that KM is still a relatively new concept. Slow execution is not because the organization does not know about knowledge management. Rather most organizations embrace, wait and see approach while implementing knowledge management projects within an organization. As organizations sometimes are not well informed about the valuable forthcoming of managing resources of knowledge. The insufficient evidence-based investigation in regards to the relationship between knowledge management practices and

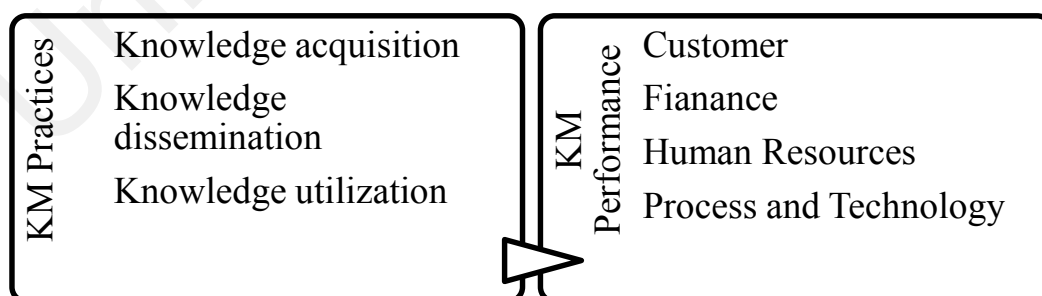
the performance of knowledge management projects which further adds fuel to resistance while implementing knowledge management practices. Researchers who used empirical research methods (Zaim, Tatoglu, & Zaim, 2007) points out, although there is a positive relationship between KM practices and the performance of the knowledge management project, the results cannot be extended to a larger population (Jayasingam et al., 2013). Thus, one of the objectives of this study is to bridge the gap in the literature by providing empirically investigated relationships amongst knowledge sharing and performance outcomes.

Knowledge administration can be characterized as the composed procedure of producing, capturing, storing, distributing, spreading and utilizing knowledge inside and between associations in order to preserve “competitive advantage” (Darroch, 2003; Davenport & Prusak, 1998; Kakabadse, Kakabadse, & Kouzmin, 2003; Mason & Pauleen, 2003). The content analysis I regards to different perceptions of KM, it is deduced that different categories clearly shows that knowledge management practices include three main interrelated components: (1) “knowledge acquisition”, (2) “dissemination” and (3) “knowledge utilization” (Darroch, 2003; Janz & Prasarnphanich, 2003; Tiwana, 2002).

The component of “Knowledge acquisition” is a continuous and rigorous procedure. (1) “Knowledge acquisition (creation) implies the ability to conceive new ideas, opinions, and solutions and integrate them into the organization” (Bhatt, 2001; Bose, 2004; Tiwana, 2002). (2) “Dissemination of knowledge implies the allocation and sharing of clear and tacit knowledge among employees throughout the organization” (Bhatt, 2001; Bose, 2004; Tiwana, 2002). (3) The “knowledge utilization implies the implementation of knowledge in new scenarios or those situations which focuses on the organization's products, procedures, and services” (Bhatt, 2001; Tiwana, 2002).

According to the survey by Reuters; 90 percent of companies who adopted (knowledge management) KM solutions are benefited in terms of improved decision making, moreover, 81 percent reported that they had seen amplified productivity, improved competitive advantage, financial performance, amplified innovation and, not only effective but also efficient use of knowledge. All these are performance consequences of knowledge management projects (Darroch, 2005). Knowledge management is also the source of competitive advantage and ultimately generates profitability. Moreover, it enhances organizational development, financial proficiency, operational administration, and shareholder's satisfaction and gains better competitive position. In short, knowledge management programs have a significant impact on diverse organizational outcomes (Carneiro, 2000; Karlenzig & Patrick, 2002; Talisayon, 2002).

The study by Ong (2003) revealed that developed way of knowledge acquisition leads the e more organization to progress and provide effective outcomes. In many firms, the market value gains are attributed to the contribution of knowledge and other intangible assets (C. Lin & Tseng, 2005). The case study investigation by Zaim et al. (2007) also supports this research that the processes of knowledge management techniques like transfer, sharing, use, and compilation of knowledge lead to positive organizational outcomes. The figure shows positive outputs of knowledge management practices.



Source: Authors own

Figure 2-2: Knowledge management practices

Knowledge sharing among the employees of an organization is essential to complement the innovation. But, there exist motivational and communicational barriers within the team members to share knowledge. For understanding the relationship between knowledge sharing and team innovation is mainly important because the team represents the organization's mechanism for achieving innovation (Chi, Huang, & Lin, 2009; West, 2002).

To overcome the barrier of sharing knowledge, leaders, and managers provide incentives for the workers to share their knowledge (Janowicz-Panjaitan & Noorderhaven, 2009). The incentives can be of various types such as, individuals who devote their energies to introducing new employees to complex procedures will be compensated with extra incentives and perks (Sarin & Mahajan, 2001). However, the provision of external incentives may not be able to achieve the desired results, since it is difficult to measure and assess employees behavior of sharing knowledge specifically when employees are urged to share tacit knowledge (Osterloh & Frey, 2000). The extrinsic motivation can be an alternative to motivate employees for knowledge sharing instead of intrinsic incentives. However, intrinsic incentives allow the employees to develop trust relationships and shared understanding among them. So, the employees become motivated and actively participate in knowledge sharing. When the team develops strong social capital among the members, contact, trust environment. It provides intrinsic returns, such as friendship and work awareness, involving the sharing of knowledge (Kalman, 1999).

2.8.1 Types of Knowledge

Recent studies regarding innovation do not clearly distinguish between the two types of knowledge that exist in the organization, which are tacit and explicit, nor does it explore the difference that is relevant to the team's internal innovation. "Tacit knowledge"

is hard to compile and can only be disseminated through experience, while “explicit knowledge” can be transferred and transmitted easily (Polanyi, 2015). Contrary to explicit knowledge, tacit knowledge gives a competitive edge to the institutions, so the competitors are unable to replicate it easily (Thomas & Watson, 2001)

2.8.1.1 Tacit knowledge

It refers to the individuals’ knowledge which is hard to communicate with other individuals via words and symbols” (Polanyi, 2015). This type of knowledge denotes that it is not easy to write, but they are best obtained through the provision of personalized training or sharing hands-on experience (Wagner & Sternberg, 1985). The actual transfer of tacit knowledge is often seen as requiring extensive personal contact and trust (Brockmann & Anthony, 2002). Most of the workers possess the valuable resources of tacit knowledge as this type of knowledge is difficult to describe, replicate and transfer to others, so that the tacit knowledge that employees possess can be the source of innovation as well as act as a competitive advantage (Lingyan & Randel, 2014). Whereas,

2.8.1.2 Explicit knowledge

It is that knowledge which can be interpreted and compiled in written language” (Polanyi, 2015). Contrary to the first type of knowledge, the transfer of explicit knowledge is possible in numerous ways including school learning, document reading, interaction with others and by means of on-the-job training (Boud & Middleton, 2003; Leonard-Barton, 1995). While codification of explicit knowledge usually contributes to the sharing of knowledge, but explicit knowledge sharing can be an obstacle due to the presence of patent protection and prevention of imitation (Lingyan & Randel, 2014).

There are numerous scholars who focus on the methods and procedures through which they made it easy to transfer these both kind of knowledge (Scully, Buttigieg, Fullard, Shaw, & Gregson, 2013; Thomas & Watson, 2001). These scholars propose that there are

ways through which tacit knowledge can be transferred to explicit knowledge. But the other researchers have highlighted the difficulty of translating tacit (without losing the original value) into explicit knowledge (Jasimuddin, Klein, & Connell, 2005; Voelpel & Han, 2005). Another problem of transferring tacit knowledge into explicit is attributed to workers low level of motivation as the conversion of knowledge requires a lot of time and effort. In addition to this, the transfer also destroys the power and authority enjoyed by the person who possesses tacit knowledge (Lingyan & Randel, 2014).

Only a small part of the literature can manage factors that benefit the sharing of knowledge by default. Much of the tacit knowledge which exists in the organization is conceptual (Brockmann & Anthony, 2002). So, it is argued that the socialization and interaction can be fruitful for sharing tacit knowledge. As empirical studies reveal that socialization involves emotions, so emotionally intelligent behavior builds intentions for tactical knowledge sharing, but these intentions are not closely related to the actual behavior of team knowledge sharing (S.-C. Yang & Farn, 2009). Another study which explains the transfer and sharing of tacit knowledge among employees concluded that the factor of trust amongst employees and commitment to the organization is positively related to the tacit knowledge sharing (C.-P. Lin, 2007).

Certainly transferring explicit knowledge is much easier than transferring tacit knowledge. Despite this, there is still an obstacle to sharing explicit knowledge. The exchange of explicit knowledge is merely important as it creates knowledge resources which are important for the innovation (Kelley, Ali, & Zahra, 2013). While discussing the factors which influences the knowledge sharing behavior, the factor of extrinsic incentives was highlighted in the literature that contributes to the sharing of knowledge (Stenmark, 2000). The extrinsic rewards, social interaction, and trust are such factors which affect the sharing of tacit as well as explicit sharing of knowledge. For instance,

extrinsic motivations can be particularly effective while motivating employees to share explicit knowledge. Whereas in case of sharing tacit knowledge, social interaction and behaviors are more important (Lingyan & Randel, 2014).

It is noticed that the knowledge shared by employees of specific organizations in the public or private sector had an impact on organizational performance (Silvi & Cuganesan, 2006). Knowledge sharing is therefore vitally important in organizations that have been seeking long-term competitive advantage (Felin & Hesterly, 2007). The initial and the vital step of knowledge management is knowledge sharing, which is the key to organizational innovation, learning capability and organizational performance (Luu, 2014). The scholarly work found that fragile mechanism of knowledge sharing may imply insufficient knowledge of cultural or organizational problems, as well as not giving enough importance to knowledge assets (Liebowitz & Frank, 2016).

Knowledge sharing with a work team suggests team members share information, experience, and opinions regarding specific tasks. One of the current challenges which are faced by the organizations in the current era is to rely on work teams, as the core of the organizational structure, in order to share their various information, experience and expertise in collective outcomes (Alexander Ardichvili, 2002; Egan, 2005). Employees working in teams may hope to exchange explicit knowledge with their team colleagues but most of the time this exchange is hindered by the employees desire to perform efficiently on their own tasks initially instead of interpreting and disseminating information relevant to that specific tasks (Ginkel & Knippenberg, 2008; Zhao & Lavin, 2012). Hence within teams, peer interaction promotes knowledge sharing, moreover, it enhances team performance.

The literature of knowledge sharing in teams reveals that KS is categorized into four research streams on it. Firstly, the collective process of sharing knowledge amongst

employees is a potential source of competitive advantage in the organization. So it is worth to know about this knowledge streams (Noh, 2013). The research investigation on this stream examine, how the basic knowledge-based resources (tacit and explicit) been exploited that exists in the organization, and the ways to tackle them (Davenport & Prusak, 1998). Research explores that sharing knowledge in the organization brings many positive outcomes, including lower production costs, improved organizational innovation and making new revenues from new product sales (Collins & Smith, 2006; Cummings, 2004; Hansen, 2002; Mesmer-Magnus & DeChurch, 2009).

The second stream of research about KS deals with the ideas, information, and suggestions relevant to individuals in the context of work teams. Studies in this stream point out, how the working groups take benefit from the other group members' opinion, talents, and ideas (Cummings, 2004) and then develop a general understanding of their team members by internal knowledge sharing (Hackman, 2002). This stream suggests that knowledge sharing is related to team performance from the behavioral aspect which is significant to accomplish team outcomes that are related to behavior (Beal, Cohen, Burke, & McLendon, 2003). Earlier studies on this stream reveal that knowledge sharing among members of the group acts as a key role in developing common understanding, improved decision making in teams, and allowing better coordination among team members (Bunderson, 2003; Srivastava, Bartol, & Locke, 2006). Based on this research cycle, this study concentrates on sharing the knowledge of individual team members with others in the workgroups (Noh, 2013).

Third research stream examines the flow of knowledge across different units of the organization, i.e. when knowledge is shared among different teams, divisions or departments. In this research cycle, scholars focus on how to get useful knowledge and practices that are been practiced in other organizational units, in order to enrich its

performance and bring innovations (Hansen, Mors, & Løvås, 2005; Tsai, 2002). Studies reveal that exchange of knowledge amongst the different departments and teams of the organizations creates an opportunity for collaborative learning and permits the amalgamation of the current resources with the creation of new knowledge (Noh, 2013).

The fourth research stream studies the process of knowledge sharing transfer of knowledge between organizations. This stream is of much significance as organizations are structures in multi-faced cultures, hierarchies, systems and the spread between organizations leads to more complexity (McEvily, Das, & McCabe, 2000). The interaction in between organizations leads to the organizations becoming vendors for each other, customers, and can be sources of competitors. The inter-organizational communication for sharing knowledge which can be a source of potential organizational problems such as disclosing of intellectual property, sharing the core of competitive advantage may lead to decrease in competitive advantage (Easterby-Smith, Lyles, & Tsang, 2008). However, earlier studies have shown that the process of understanding and transferring knowledge with the related problems between organizations can enhance the organization's ability to increase knowledge sharing and contribute to organizational performance and/or innovation (Easterby-Smith et al., 2008).

In the past decade, the team's knowledge-sharing research has identified various determinants, including the culture that prevails in teams, the individual personality characteristics of team members (Kurt et al., 2008), teams' interaction, socialization and communication style, attitude of sharing knowledge (Dries, Hooff, & Ridder, 2006), interactive relationships (Gulensfeld et al. 1996), diversity in organizations (Cummings, 2004), experiential diversity of team members (Stasser et al., 2000) and team size (Stasser and Stewart, 1992). The conclusive factor of leadership exhibited that leaders strongly affects the knowledge sharing in teams and found that it had excellent team performance

(Politis, 2001; Srivastava et al., 2006). In the view of existing literature (e.g., Bartol et al, 2009, Earl 2001, Nonaka & Takeuchi, 1995) the team members exhibit three individual behaviors for the exchange of knowledge. The behaviors categorize as provision, socialization, and externalization (Noh, 2013) as presented in table 2.4.

Table 2.4: Knowledge sharing Behaviors

Behavior	Description	Examples	Studies
Provision	Transmitting and distributing task-relevant data and information through written or verbal communication.	Employees pass along information that may be helpful to the work of the team. Employees keep others informed of emerging developments that may increase their work effectiveness.	Chen (2011) Bock, Zmud, Kim, & Lee (2005) Cummings (2004) Bartol et al. (2009)
Socialization	Sharing know how or expertise by directly working with team members through observation, imitation, and practice.	Employees readily share his/her expertise to help other team members to resolve work team problems. Employees willingly give advice to others in the team whose work efforts could benefit from his/her expertise.	Faraj & Sproull (2000) Bartol et al.(2009) Nonaka & Takeuchi (1995)
Externalization	Sharing know-how or expertise by articulating and communicating through concepts, models or stories.	Employees offer innovative ideas or work processes in his/her area of expertise that can benefit the group's work. Employees frequently share his/her expertise by making suggestions that benefit the work team.	Bartol et al.(2009) Nonaka &Takeuchi (1995)

Source: Bartol et al. (2009)

Firstly the “*provision* refers to the behavior of team members which allow them to transmit task-related data and information. This sharing can be achieved through written or verbal communication” (Bartol, Liu, Zeng, & Wu, 2009; Bock, Zmud, Kim, & Lee, 2005; Chen, 2011; Cummings, 2004). Team members also inform others of new developments that can increase productivity (Bartol et al., 2009).

Secondly the behavior of “*Socialization*” allows team members to work and share their expertise through help, advice and working together (Faraj & Sproull, 2000). The sharing

includes both the tacit knowledge, Nonaka and Takeuchi (1995) suggesting that beneficiaries can obtain tacit knowledge through personal interaction, observation, and learning. Companies can share their expertise with team members to facilitate and solve problems of other team colleagues by providing an expert opinion which can be beneficial for the ultimate team outcomes (Bartol et al., 2009).

Thirdly the behavior of *externalization* while sharing knowledge. “It refers individuals in the work team to communicate their skills and expertise by expressing their tacit knowledge with explicit knowledge” (Bartol et al., 2009; Earl, 2001). According to Nonaka and Konno (1998), the display of externalization is activated by a continuous cycle of expressive conversations through utilizing the complex symbols enabling team members to articulate their views and disclosing the hidden tacit knowledge which is difficult to convey. In a prevailing team culture, such exchange is possible with the help of team members’ aptitude of sharing, providing innovation or work processes in their areas of expertise, facilitating job, enhancing the performance of teams, or sharing their expertise by providing recommendations for the team benefits (Noh, 2013).

Such behaviors for sharing knowledge in teams are also coherent with Hansen, Nohria, and Tierney (2005) proposal. According to them, the organization emphasizes on two strategies regarding knowledge sharing. One is a coping strategy, in which “knowledge is carefully recorded and stored in a computer system”, and the other is a customized strategy in which Knowledge is stick with the person who creates it or possesses it and primarily shared by personal contacts (Noh, 2013).

The above discussion in relation to the knowledge sharing behavior the delivery of explicit knowledge belongs to the compilation strategy and the remaining two are the alternatives are grounded in the approach of individualization. It is inferred from the discussion and critique of the literature that all three behavior are substantial for sharing

knowledge. Although the work group can highlight one, all of these actions are important for the team to use personal knowledge for collective use (Bartol et al., 2009).

The sharing of knowledge within the work teams on the specific behavior of employees, the review of the classification of knowledge management system of available literature (Bartol et al., 2009; Nonaka & Takeuchi, 1995) was conducted. The analysis revealed and discussed behavior for the team members to share knowledge which includes allocations, social and outsourcing (Noh, 2013).

The research articulates the impact of knowledge sharing is substantial on team performance, as KS accelerated the performance in teams by developing the team mental models and enhanced communication ability. Thus, enables enhanced team coordination and collaboration among the teams (Mesmer-Magnus & DeChurch, 2009; Srivastava et al., 2006; Ginkel & Knippenberg, 2008). The understanding of the team culture in a structured way is facilitated by the usual team mental models resulting in the team environment which leads to the culture of trust and understanding (J. Mathieu et al., 2008).

According to Kozlowski and Ilgen (2006, p. 83), *"the concept of the mental model developed in the human factor literature is a cognitive representation of the system that can be used to predict the state of the system and to deduce the behavior of the system"*. This conceptualization explains the mutual understanding of the teams' environment; empowering the team workers to predict the needs and requirements of their fellow workers thereby adjusting their behaviors accordingly. The study by Okhuysen and Waller (2002), reveals that over the period of time team members aptitude of discussing, sharing and integrating knowledge developed their ability to organize the captured knowledge in a systematic and orderly way. Consequently, over the period, this knowledge can lead to the development of collective intuition (Isenberg, 1991). The

teams also construct a model of shared team spirit which allows the team members to perform the same tasks on the same lines and patterns and achieve superior team performance (Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000).

Further, the sharing of knowledge can be flourished by developing an interactive memory to ensure coordination among team members, which is defined “*as a common understanding of who knows what is in the team*” (Wegner, 1987). The researcher argues that in a situation where all members have a fundamental knowledge of the other team members area of expertise, the team as a whole can enjoy advantage and facilitated by the other team colleagues knowledge. The creation of interactive memory encompasses the components of monitoring and upgrading the unique perspectives of the team members by interactive communication strategies for the sake of knowledge sharing (Mohammed & Dumville, 2001; Wegner, 1987). Moreover, the interactive memory enables the improved coordination as team members are empowered to predict each other conduct (Wittenbaum, Stasser, & Merry, 1996). In short, knowledge among employees, especially among team members helps them to build a coordination, collaboration, mutual understanding and a combined knowledge base, which acts as a form of teams’ psychological model and interactive memory to accelerate effective coordination and performance of the team (Kozlowski & Ilgen, 2006).

Numerous organizations comprehend the significance of employee knowledge sharing and optimist to introduce a knowledge management model to facilitate organizational knowledge sharing by employing team working Knowledge sharing refers to the interaction, communication, and collaboration between team members (Cohen & Bailey, 1997), including implied expertise to coordinate or inform others in a group regarding the content (Faraj & Sproull, 2000). The sharing of knowledge in teams is a result of unconscious efforts and the leaders of the team can have a strong impact on the degree of

knowledge sharing (Srivastava et al., 2006). Leaders play a role who encourages the subordinates to initiate the exchange of knowledge, leaders generate such processes and create opportunities which inspires team members to share knowledge amongst colleagues.

Summarizing the discussion and arguments; knowledge sharing is considered as a multifaceted phenomenon that can be achieved at the individual, inter as well as intra-organizational levels (Wilkesmann, Fischer, & Wilkesmann, 2009). In this process, the interaction of organizational representatives such as individual employees, units, and teams get affected by the experience and exposure of others (Argote & Ingram, 2000). The fact that shared knowledge is always controlled by individuals and the teams' basic unit is formed by individuals who make them, creating it as an interactive activity for the mutual learning (Empson, 2001). In other words, knowledge sharing does not seem to be controlled by the organizations anymore. Thus, the future focus would be facilitation on knowledge sharing through organizational culture and other workplace factors (Lam, 2005), and the use of human resource management practices that can generate positive attitudes to promote knowledge sharing (Swart et al., 2014).

The individual quality of the knowledge is also interconnected with the two-way occurrence of sharing knowledge one is the provision of knowledge to others and second is to choose reliable sources of obtaining task-relevant knowledge. It is important to note that the sharing of knowledge, will change the interpretation and the perception of the knowledge from the original meaning. It deviates from the perception from the provider view viewpoint as well as from the recipient viewpoint (Watzlawick, 1977) therefore, it has a dynamic quality. Individuals by adding new knowledge to the existing resources of knowledge in an upgraded way. Individuals incorporate the new content of knowledge by exploring the potential association of new contents with the existing knowledge.

People get the new knowledge when they explore the positive impact of new knowledge over existing one. Cognitive science calls this process a representative re-description (Karmiloff-Smith, 1995). It refers to the “*process of incorporating new knowledge into existing knowledge, and then reorganizing or re-describing the existing set of knowledge*”. Hence the integration is not already available in organizations, rather is an outcome of interpersonal interaction within the framework of the social organization, incorporated into the idea of social capital (human resources) and organizational culture (Kang, Snell, & Swart, 2012).

It is substantial to realize the significance of knowledge sharing within teams and organizations. Given the organization's reliance on personal and collective knowledge, this is a key process that addresses customer issues and ensures the company's future success (Swart et al., 2014). Because the activation of knowledge sharing mechanism enables collaborative resources to be utilized for gaining competitive advantage. The teams and the associated organizations can maximize their performance and capitalize on their human capital.

2.9 Underlying Theories

Theories have been developed to clarify, anticipate, and comprehend different phenomena and at times to challenge and expand existing learning inside the breaking points of basic suppositions about any concept. The current research study borrowed and integrated two theoretical models such as (1) social exchange theory and (2) emotional intelligence theory which has provided the theoretical paradigm to conduct this research. These theories are presented in following sections.

2.9.1 Social Exchange Theory

The theory of social exchange alludes that the social actors operate with other interested actors to achieve the individual goals that they cannot attain if they work

individually. The central principle of social exchange theories is self-interest of actors and interdependence amongst employees. As it provides a frame of reference for any two entities such as leader or group, two individual employees or two organizations to produce new products or services (Emerson, 1976). Thus, social exchange theory refers to two or more parties who have precious objects and decides to exchange for the mutual benefit (Lawler & Thye, 1999).

Since the 18th century, social philosophers like Adam Smith struggled to understand the mechanisms underlying the development of social interactions and relations. While inferring social exchange behavior, Smith (1827) infers that, *“Whoever offers to another a bargain of any kind, proposes to do this: Give me that which I want, and you shall have this which you want, is the meaning of every such offer; and it is in this manner that we obtain from one another the far greater part of those good offices which we stand in need of (Smith, 1827, p. 7)”*. Therefore this theory fulfills the requirements of interdependent parties.

Social scientists (Huston & Burgess, 1979) in perspective of social exchange theory advocated that social interaction amongst individuals are characterized by their own interests, dependence or interdependence. Although the group of theorists generally agreed that social interaction was needed, their divergent school of thought was the driving force behind the two camps, which led to controversy over what was superior to tradition. For example, George Homans who is considered as the founder of “individualistic approach”. He is a sociologist and his practical theory places individual needs and desires in the center of the social action. Contrary to, Ekeh (1974) argues in lieu of Lévi-Strauss (1958) work. He viewed social exchange through the prism of the anthropological lens, and argued that anthropological perspective act as a catalyst for the social exchange of “collectivism approach”.

Rather than personal interests, the collectivist approach infers that if social behavior contributes to the existence of society, then the social behavior will appear. Interestingly, Ekeh (1974) argues that Levi-Strauss's theory is equally enraged, forcing Homans (1961) to derive his individualistic theory of social exchange.

Further Levi-Strauss (1969) distinguishes between two forms of social exchange namely financial and non-financial and presents his unanimous exchange. He further emphasized that minimum three individuals should be involved in the social exchange. Thus, he suggested that actor A would be interested in actor B, but did not expect reciprocity. While it is desirable that the final individual (such as actor C or actor D) who gets benefit will provide an advantage equal to A. Because of these complex exchange mechanisms, Lévi-Strauss successful made persuasive arguments in order to solve many problems. Thus, Homans (1961) complements social exchange model.

Paradoxically, Levi-Strauss argues that social interaction is entirely inspired to frame social exchange networks by assimilating social actor interaction. By proclaiming himself as psychological reductionist, Homans (1961) explained the individual theory of “self-interest” in an effort to combine psychology and economics focusing to explain the conception of “social exchange theory”. The definition of social exchange by Homans (1961) asserted that two individuals faced the fact that everybody returns directly and instantly and everyone can do their work with full efforts. In his opinion, it is obvious that the perspective of social exchange is dyadic and the real behavior of exchanging rewards or punishment is direct and is not just a custom indicating the designated behavior (Homans, 1961).

According to the tradition of individualism, Blau's exchange theory (1964) attempts to strengthen the conceptualization of people on the basis of the economic exchange of society. Blau advocated that social exchange would occur “when an individual is attracted

to another if he expects to associate with him to be in some way rewarding for himself, and his interest in the expected social rewards draws him to the other” (Blau, 1964, p. 64). Ekeh (1974) pointed out that Blau's trade theory suggests that individuals who attempt to maximize their economic gain through social interaction are more prominent than those discussed in Blau (1968) on the formation of social interaction. Trust is also the pre-requisite in the social exchange. However, in general, there is slow development of social exchange relationships, from a small number of transactions to large interactions. As trust is needed for social exchange thus, both parties can prove their reliability in order to extend their relationship and carry out main transactions. Thus, social interaction process leads to the necessary confidence in a self-created manner.

According to Ekeh (1974); three important principles that must be assembled from Blau's exchange theory. First of all, though Blau considers that his theory encompasses collectivism and individualist ideologies, but in reality, it is the principle of reciprocal mutual exchange of theory. Second, the formation of high-quality interaction and socialization is characterized by the trust which takes time to build. Finally, trust is gained through efforts and time, rather than simply supposed to exist between the parties to the transaction. Ekeh (1974) argues that Blau's special influence on actors leads Blau to deny Gouldner (1960) "Fundamental and omnipresent principles of reciprocity." This is an interesting but important argument, as recent researchers in social exchange often combine Blau and Gouldner in their work.

It is important to note that the communication between employees and others goes far beyond than mere economic exchanges. Although some exchanges can only play a role in making money, social interaction has a positive impact, confidence, and kinship. "Only social interaction tends to produce personal obligations, the feeling of admitting and trust; purely economic exchange does not do so" (Blau, 1964, p. 94). The exchange of attitudes

and behavior of the participants made far beyond the cause of the guilty. Social exchange (formerly known as the psychological exchange in the literature of social exchange - for example, human (1961) involved those obligations which are not clearly specified and lack a standard value to specify. Thus, in social exchange, participants do not give priority to value equivalents rather than economic exchanges, which clearly define what is exchanged and when will they be reciprocated.

In general, the different theories of social interaction suggest that the exchange can be viewed as a dyadically or systemically, which can support the goal of individualism or collectivism, and based on the standards or interactive tools. We believe that these comparative arguments emphasize the inherent complexity of the individual's social interaction. However, the study suggests that workplace social exchange network is highly influenced by all the variables that studied previously in this study.

Management research is largely concerned with the nature of social interaction focused on employees in teams and organizations. Seers, Petty, and Cashman (1995) emphasized these relationships, considering that these reciprocal exchanges were planned for employees who exhibited positive behavior and attitudes in the workplace. One of the most relevant exchanges which have been investigated in this study is the social exchange in teams. Literature suggests that the exchanges (between leader and employees or among employees and organization) depend upon the quality of communication with supervisors and the organization related to the behavior and the performance (Settoon et al., 1996; Shore & Tetrick, 1991).

Recently, researchers have begun to investigate organizational phenomena by implementing a comprehensive model of exchange relationships. Settoon et al. (1996) infer that social exchange between organizational employees and organization and social exchange between leaders and employees complements each other in predicting

employees' positive attitudes and behavior. Seers et al. (1995) pointed out all these social exchanges leads to a more comprehensive approach which explores the social exchange phenomenon with other variables as well. Morgeson and Hofmann (1999), argues that integration of all these social exchanges will also lead to tangible benefits. Thus, a comprehensive variable which better explains all these exchange relationships called as WESN (workplace social exchange). Hence Social exchange theory bridge the gap between employee needs and, organizational structure and culture (Klein, Tosi, & Cannella, 1999).

Considering the theoretical paradigm of SET, Team members exchange advocates the perception of individual members of the exchange of relationships with the entire companion group (Seers, 1989). In addition, team members exchange has proven to be a useful predictor of job satisfaction, peer satisfaction, job performance, identification, participation and turnover (Hellman, Witt, & Hilton, 1993). Team members will use the inherent interrelationships of social exchange to strengthen the individual roles and identities of groups (Seers et al., 1995). In general, team member exchange attracts employees to take on additional roles and supports other team members and teams (and generally) in accomplishing their goals.

Owing to the importance of social exchange theory in the working place it is inferred that each employee has a minimum level of social interaction needs, which is supported by social exchange theory. Contrary, in absence of social exchanges employee's desire to continue their work would fall with the passing time. In the empirical literature, the researchers reported a strong relationship between social exchange and employees' turnover intention which lead to actual turnover (Gerstner & Day, 1997).

In addition, researchers from different disciplines have identified the importance of individual needs for social interaction. For example, MacGregor (1960) advocates that

individuals' social needs are the important source of its behavioral motivations. Such social needs include the requirement of belongingness to others, need of being interdependent with colleagues and coworkers in the organizations considering the structure of organizations.

The organizational structure refers to the organizational principles and provisions of organizational roles. On the basis of hierarchy, flat and team-based structural models are widely considered to influence the proposed relationship with the exchange. The organizations employing team-based working have framed their way of working grounded in the interdependence with colleagues, which determine their working environment (Conger & Kanungo, 1988). Hence it is inferred that team members working in teams own the team coordinations such as exchange of information, display of supportive attitudes within teams. Further, the team structure is developed in light of the organizational structure as it is not mandatory that all teams are regulated in the same way. Thus, the organizational structure influences the team working, the range of possible collection and interaction associated with a social network of the team working.

Considering the team culture which is another construct of the study refers to all the shared and implied assumptions that the members of the team hold. Such assumptions may affect the way in which the social exchange relationship is developed. As there are certain acts that will be considered more valuable than others. As a result, some exchanges will be given priority because their mutual behavior will be more actively considered and encouraged by cultural norms. The study by Homans (1974) advocated that teams of similar type strengthen related behavior influenced by the team culture. Team members bound in teams of the homogenous framework may prioritize their exchange accordingly. Thus, the uniform culture of the dominating team or organizational level will correspond to the priority exchange relationship (Homans, 1974).

As per the arguments discussed in support of the literature this study borrows the perspective of social exchange theory. Employees' interaction working in teams with leaders is of foremost importance. As organizational success is incomplete if communication among employees with another important entity such as "teams" working in organizations is ineffective. Regardless of the increased team working in organizations (Gordon, 1992), few studies have focused on the social interaction and exchange between members of work teams which is also known as team-member exchange (Seers et al., 1995). All these exchanges within team working are of significant importance such as leader's behavior, the role of team culture induces the team member attitudes, knowledge sharing among team members which ultimately influences team performance.

2.9.2 Emotional Intelligence Theory

Since the current study is the integration of the two theoretical paradigms. In addition to social exchange theory; the second theory which supports certain relationships of the research framework is "Emotional Intelligence Theory"

The theoretical lens of emotional intelligence theory implies that leaders provide the emotional intelligence ability for enhanced outcomes (Lambert, Tepper, Carr, Holt, & Barelka, 2012). Therefore leaders emotional intelligence equipped leaders to identify the requirements for practicing the right leadership behavior. Moreover, the integration of theoretical lenses provides a framework to investigate the interactional effect of the leadership, culture and the performance.

Emotional Intelligence theory (EIT) asserts that individuals possess the ability to monitor one's own and other's emotions, to discriminate among them, and to use the information to guide thinking and actions (Salovey & Mayer, 1990). The theoretical paradigm of EIT is operative in social, practical and emotional intelligence information in different organizational phenomena (Lee, Wong, Day, Maxwell, & Thorpe, 2000;

Mayer et al., 2000; Sternberg, Wagner, Williams, & Horvath, 1995). Management scholars assert that EI theories and leadership go hand in hand as an excelling leader is someone who has a calm assuring behavior. Moreover, the leader is acquired to be empathetic, a kind an influential speaker, ensures availability for his followers and always seems to make the right informed decisions and who is in control no matter what the situation. Effectively, these are all attributes of someone who has high levels of emotional intelligence (Mayer, Salovey, & Caruso, 2004). Referencing to Salovey and Mayer (1990): the leader is capable to control and monitor his own emotions as well as emotions of his team members for excelling team outcomes. Considering the paradigm of emotional intelligence theory; several studies (Berlin, 2010; Koman & Wolff, 2008; Raesli et al., 2016) explored the direct relationship between leader emotional intelligence and team performance.

The theory of emotional intelligence broadens the horizons of multiple intelligences and strengthen the social networks. In this study, the theory of emotional intelligence explains the application of emotional intelligence skill to enhance and manage intrapersonal relationships of healthcare professionals working in teams. Healthcare staff working in teams required to build a good relationship with teams and organizations (Freshman & Rubino, 2004). The ability of emotional intelligence allows the individuals to develop cordial relationships comfortably. The ability of emotional intelligence equipped leaders to acknowledge the emotions of his team members and manage them accordingly. An individual working as leaders intend to satisfy diverse mindsets of members to accomplish team tasks and achieve specific objectives. Therefore the ability of emotional intelligence support leaders in pursuit of effective team working. Focused on the team tasks and processes leader must be able to identify what stage the group is in, and any other processes that may take place based on the behaviors the members display. This

can be done by using emotional intelligence to understand the underlying emotions and motives that drive member's behavior (Hohlbein, 2015).

Moreover, the EIT refers to the individual capacity to discover and express emotions. It consists of being able to understand and be logical with others, and one's own, emotions. A leader with the talent of emotional intelligence can efficaciously control their feelings manifesting relationships with their colleagues (Shanks, 2016). 2016). This means that in order to affect the contributors of the group, as nicely as acquiring by the reciprocal process, leaders must be able to examine emotions of its team members. These emotions can be assumed when the members verbally inform them how they feel, or express their thoughts via non-verbal facial expressions and body gestures. Leaders should be able to apprehend what different members are thinking and feeling, even if the team members do not explicitly say how they sense (Codier, Kamikawa, Kooker, & Shoultz, 2009) The leader has to be added in a position to control the personal emotions. This can include controlling one's temper, or the capability to be aware of how one's movements and decisions can make some other people feel. Leaders acknowledge feelings of other team individuals in splendid ways so that the team member's experience they are being treated fairly (Alkahtani, 2015). According to the scholarly work of Shanks (2016) states that some of the behaviors that show emotional intelligence are self-awareness, self, confidence, self-regulation, consciousness, motivation, empathy, and social skills.

In summary, social exchange theory and emotional intelligence advocates, in an organizational context, sometimes there becomes occurrence of events which can only be solved by the insight of leaders. The leadership practices and emotional intelligence is triggered by key-Lock relationships where EI serves as a key to unlock opportunities available to the leaders for enhanced team outcomes (Hurley, 2008). It can be small team

conflicts to the large organizational level disputes. If the leader is rational then the problem can be solved by its deep insights.

2.10 Chapter Summary

In summary, this chapter presented the comprehensive review of the literature in relevance to the study constructs. The chapter critically analyzes the pioneer and the updated scholarly work and identified the research gaps in existing body of literature. On the basis of reviewed literature, the study comes up with syllogisms of deduction in regards to the formulation of hypotheses that examines the mediating role of team emotional intelligence and knowledge sharing which will be discussed in chapter three. Moreover, it explains the literature which supports all the hypotheses of the current study. In addition to, the chapter of a literature review concluded by explaining the underlying theories which support the conceptual framework of the current study. Chapter three discusses the research model and the hypothesized relationships amongst the study constructs.

CHAPTER 3: RESEARCH MODEL AND HYPOTHESES DEVELOPMENT

3.1 Introduction

This chapter aims to present the research model and development of the hypotheses in addressing the formulated research questions and the problem statement. The chapter is divided into two sections: (1) research model and (2) hypotheses development. The first section explains the development of the research model and justification of incorporating the constructs. The research model is developed based on five constructs: (1) Leader emotional intelligence (Leader EI), (2) Team Culture (TC), (3) Team emotional intelligence (Team EI), (4) Knowledge Sharing (KS) and (5) Team Performance (TP). The second section presents a formulation of hypotheses aligned with research objectives of the study following which twelve major hypotheses are developed and reflected in the research model which explains the relationship between different variables and their respective impact on team performance. Further, this chapter examines the relationship amongst the variables and concludes with the formulation of the hypotheses.

3.2 Research Model

For the purpose of developing research model; the content analysis was carried out to identify the constructs with their dimensions. Further, the identified constructs and their respective dimensions the expert panel was consulted to seek their opinion in regards to their importance in order to finalize constructs and their dimensions. On finalizing the constructs the research refers to the literature theoretical models for developing the research model and examine the causal relationship amongst variables. On examining the literature two theoretical models were identified: (1) social exchange model and (2) emotional intelligence model. Subsequently, these theoretical models are integrated to develop research model and hypotheses development for answering the research questions. The theoretical models were integrated due to following reasons: (1) Integration of models facilitated parsimonious and academically justified way of

examining the constructs and their relationships, (2) integrated theoretical paradigm permits to explore the extent of leader's EI and team culture on team performance with intervening role of team emotional intelligence and knowledge sharing, (3) they offer a theoretical lens to investigate the to examine the suggested hypothesized relationship and their significance. The identified variables were mapped into the research model as shown in figure 3.1. The following section explains the hypotheses development and relationships between constructs.

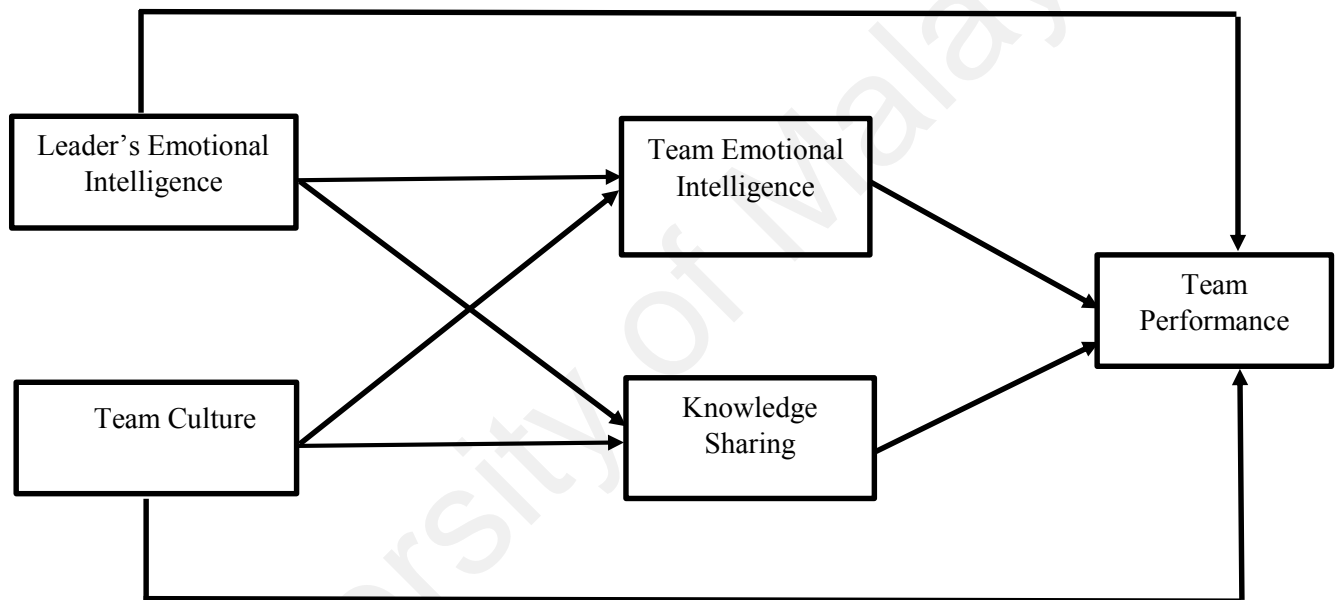


Figure 3-1: Proposed Theoretical Framework

3.3 Hypotheses Development

The research model of the study is empirically tested based on twelve hypotheses. Figure 3.2 portrays the research model which shows twelve hypotheses for the study. Based on the research model and prior discussion in chapter two the hypotheses are presented in the subsequent sections.

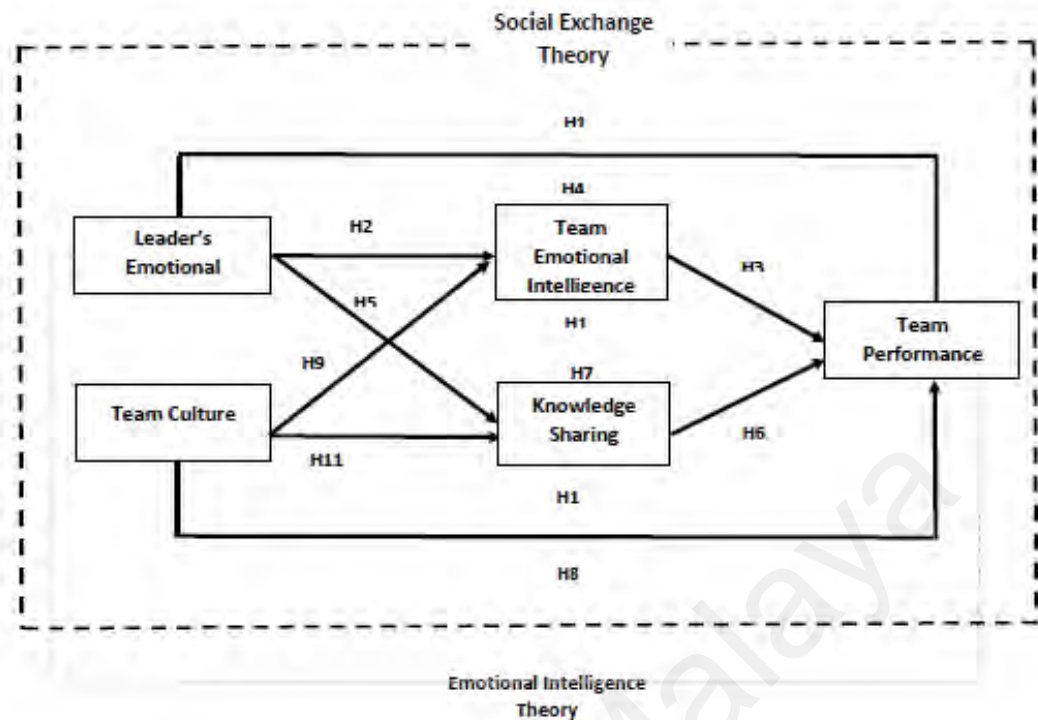


Figure 3-2: Theoretical Framework with Hypothetical Relationships

In literature, varied research models provide evidence that the emotional intelligence of leaders is important for members to display supportive attitude and behavior and team culture influences the development of emotional intelligence and exchange of knowledge for optimizing team performance. Possessing a high level of EI enable leaders to extricate subordinates emotions (feeling of being depressed or stressed due to any reason) in a precise manner, and they are emotionally mature to practice supportive and participative leadership. Hence emotionally intelligent leaders are capable enough to comprehend and address the negative emotions of subordinates which enable them to perceive social support and work in a stress-free working environment.

This section explains the research model and development of research hypotheses. Moreover, it examines the extent to which team emotional intelligence and sharing of knowledge strengthen the association amongst the independent constructs (leader's emotional intelligence; team culture) and dependent construct (team performance). The

relationships depicted in the framework are grounded in syllogisms of deduction among variables as explained in chapter two. Previous studies indicated that emotional intelligence is pertinent for persons working in leadership positions (e.g. Klare et al., 2014; Nabih et al., 2016) and it is claimed that “*EI leads to 85 percent exceptional performance in leaders*” (Palmer et al., 2001, p. 5). The skill of emotional intelligence accelerate the eminence of interactive functioning and influences the accumulation of emotional intelligence at the team level (e.g. Ghuman, 2011, 2016; Goyal & Akhilesh, 2007). The role of leader EI leads to the development of emotional intelligence among team members as team leaders own the responsibility for the ultimate team success by enhancing soft skills. The phenomena of team performance and emotional intelligence is of progressive attention in the field of healthcare and is reflected among one of those non-cognitive factors which are anticipated in future healthcare professionals for optimum performance (Berlin, 2010). As the presence of non – cognitive abilities are contributing factors for the patient-centered service delivery, desired for effective coordination and lead to the patient satisfaction. Hence this study offers in-depth understanding of the constructs of the study by empirically testing the hypotheses. The following section explains the formulation of hypothesis in support of the existing literature.

3.3.1 Relationship between leader emotional intelligence and team performance

The effect of leader emotional intelligence on the team performance is discussed in chapter two of the literature review. Moreover, the chapter two discussed how leaders may affect the emotions of their subordinates, as they firmly built their subordinates perceptions in regards to their fair attitude (Greenberg, 2004; Neil et al., 2016), and the extent of their trust towards leadership competencies.

Generally, the team leader is responsible for the overall functioning of the team and handles various parallel problems (Chatalalsingh & Reeves, 2014). Therefore an

individual working as a team leader should be competent enough to tackle various situations for the optimal team performance. Thylefors and Persson (2014), stated that *“healthcare requires significant team’s leadership; it is, therefore, relevant to know more about a team’s functional leadership in healthcare – in particular, the extent to which doctors, in their role as team leader, encourage, support and coordinate teamwork”*. Different theoretical models support the relationship of Leader’s EI and team performance such as Social Exchange theory (SET) and Emotional Intelligence theory (EIT) as discussed in chapter two. The theoretical paradigms of the integrated theories suggest that the leadership is one of the mandatory factors in organizational strategically reforms that may influence the subordinate way of working and behavior. The role of leader endeavors to describe how specific events have an impact which in return, affect peoples’ attitudes and behaviors (Yukl, 2011). Such theoretical underpinnings assert that individuals have an endogenous form of influence, such as personality-based emotional tendencies which may interfere with other endogenous patterns and have an external impact on the outcomes.

Management scholars (e.g. Azouzi & Jarboui, 2013; Jamshed, Nor, & Bakar, 2017; Quoidbach & Hansenne, 2009; Wan et al., 2014) believe and prove that team leaders have a positive impact on the performance of their immediate subordinates. Leader behavior works as a substitute which may influence different attitudes and behaviors of team members. Weiss and Cropanzano (1996) advocate that attitudes include emotional elements as well as cognitive determinants. Therefore, attitudes and individual behaviors are influenced by emotional experiences as well as through, contextual hints and past experience. Therefore, both attitudes and the effects lead to behavioral responses (Pirola-Merlo et al., 2002). According to emotional intelligence theory, effective team performance depends on the appropriate correspondence between leadership and

employee interaction and the extent to which leaders controls the emotion-driven situation and its impact.

Literature regarding emotional intelligence has been associated with leadership. The resonant leader has the skill to harmonize with employees and coworkers in the working environment. As such leaders utilize their competencies to manage their own and their subordinates' emotions harmoniously. They induce a supportive environment at work considering the organizational needs and objectives. According to Boyatzis and McKee (2005), emotionally intelligent leaders capable to comprehend emotional factors and manage them in a lucrative way which ultimately contributes towards the effective organizational and team outcomes. Similarly, the role of emotionally intelligent leadership also echoed in nursing (health sector) literature. Literature (e.g. Cummings et al., 2010; Mshellia et al., 2016; Squires, Tourangeau, Spence Laschinger, & Doran, 2010) suggests that resonant nursing leaders strive for the improved patient services and contribute towards creating a conducive working environment for the team members. Such adaptable working environment led to their satisfaction at work and perceive that leader cares for their wellbeing that ultimately enhanced their retention and dedication at work. Hence nursing leadership is desired to create and support the team performance.

The role of leadership is reflected as one of the important situational factors in the literature on Human resource management and organizational behavior. The literature discussed in chapter two also reveals that leaders who possess positive emotions, shape their teams in a better setting by consciously engaging them according to their deliberate behaviors. This leads to higher team performance rather than a team who have ordinary leaders with low emotional intelligence (Chen et al., 2015). Thus the following relationship is hypothesized as:

H1: Leader's emotional intelligence has a significant positive relationship with team performance.

3.3.2 Relationship of Leader's Emotional Intelligence and Team Emotional Intelligence

The relationship between leader EI and Team EI has been discussed in the sections of literature review respectively. Earlier researchers argued that leader EI leads to enhance the competency of developing emotional intelligence skill among team members. Koman and Wolff (2008) stated that *“team leaders are responsible for the success of the teams they lead. As such, they are not only accountable for their own emotions, but also for the emotions of the team they lead and the clients of the team”*. So it is inferred that in order to influence people and rule over them, it is necessary for a leader to possess the knowledge and ability of emotional intelligence competencies. As described by the Boyatzis (1982) emotional competencies refer to the potential characteristics of people who drive or lead to efficient and exceptional performance. As, the team is social in nature, so it is quite logical that no leader can extract maximum output from its team until or unless he became emotionally aware of its team (Gardner & Stough, 2002; George, 1995, 2000). Thus, emotional intelligence is not only important for the team to work effectively but also for the leaders and managers to inculcate competencies of emotional intelligence amongst team members.

Prior literature advocates that emotionally intelligent leadership has a deep effect on the teams' emotional intelligent abilities; as leader's EI create environment where members are forced to learn the ability of emotional intelligence, efficiently (Goleman, 2001; Koman & Wolff, 2008). In addition to, Offermann et al. (2004) and Jordan and Troth (2004) revealed that teams who possess a high level of emotional intelligence performed better than the lower EI team.

Goleman is one of the pioneers who elaborated the concept of emotional intelligence in business world advocated that emotionally intelligent leaders cultivate the enduring culture where employees are inspired to get to know each other positively. When a leader is available to facilitate team in developing the skill of emotional intelligence, the workers preserve corresponding attitudes towards leader perspective and opinions (Druskat & Wolff, 2001a). Researchers endorsed that the leadership of teams have a profound impact on the procedures, aptitude, standards, and culture of the teams (Dickson et al., 2001; Kimberly, 1980; Samiuddin et al., 2017; Schein, 2010). So the research in the field of leader emotional intelligence and team emotional intelligence is considered to be substantial.

Similarly, leaders working in healthcare organizations are projected to design and sustain effective teams. Though owing to the reorganization of the health care, the role of leaders working in healthcare institutions is increasingly affected by management and first-line care. This could lead to a climate of distrust between nurses and front-line nurses (Udod & Care, 2013). In this scenario leading to emotional intelligence is considered as a viable source which may bridge the gap (Heckemann, Schols, & Halfens, 2015). Hence it is affirmed that emotionally intelligent leader is considered imperative in building teams and manifestation of team members emotions (Druskat & Wolff, 2001a; Stubbs, 2005). Therefore, it is hypothesized as:

H2: Leader's emotional intelligence has a significant positive relationship with team emotional intelligence.

3.3.3 Relationship of Team Emotional Intelligence and Team performance

The team is intellectualized as social entities which over the period share the common experiences or events. The connection between team emotional intelligence and team performance can be inferred from previous research (Chang et al., 2012; Weiss &

Cropanzano, 1996). In perspective of earlier research, the shared experiences can lead to emotional reactions within the teamwork which may have an impact on the attitude and behavior of the members. Individual members of the group bring their emotions, moods, feeling and emotional intelligence to the team which in return develops collective emotional intelligence of the working team which ultimately impacts performance (Liu & Liu, 2013). It is done through implicit and explicit processes. Therefore, it is inferring from the above discussion that teams' emotional intelligence have an influence on the employee's attitude and behavior, thus also affect the performance of the team.

The ability to use emotion or create emotions to promote problem-solving has a significant impact on the effectiveness of team members. Barsade (2000) from Yale University School of Management, learn emotional understanding and found that a positive team and group development will help members to participate and cooperate, reduce conflict and improve the effectiveness of the team. In another study by Raesli et al. (2016) found; members of team possessing the extraordinary skill of emotional intelligence had a significant positive correlation with the departmental manager on the performance of the customer service team. Thus, the relationship between team EI and performance is positively associated (Raesli et al., 2016). Based on these findings and other similar findings, it is inferred that emotional intelligence is an intermediate and organizational factor which can improve team performance because it allows the team to synchronize in a better way. In addition, it seems that teams with lower EI levels need more time to work effectively in a coordinated and coordinated manner (Raesli et al., 2016).

Moreover, Druskat et al. (2013) state that there has been an increased emphasis on researching the role of emotional intelligence in workgroups and teams. Team EI has been turned out to be significantly identified in the execution of team working. It is expected

that the establishment of specific group norms that make mindfulness and direction of emotion at different levels of emotion; prompts better results (Druskat & Wolff, 2001a). Positive team EI will advance and nurture team performance through boosting team interactions and communications, and exchange of knowledge between each other. Whereas team emotional intelligence is negative if team members, for the most part, feel low and distant from each other (Liu & Liu, 2013). Working teams encompassing recognized interactions of emotional bonds encourage members to accomplish the task with enhanced efficiency consequently influences the performance of the teams (Ghuman, 2016). Thus it is anticipated as:

H3: Team emotional intelligence has a significant positive relationship with team performance.

3.3.4 Team Emotional Intelligence as a mediator

Team emotional intelligence refers to the idea of the collective spirit of emotional intelligence possess by group members in a particular team. The team level emotional intelligence facilitate development of team synergy and nurture relationship considering the nature of team business (Ghuman, 2011). Hence team as a whole identity should be well aware of the associated organizational requirements which may be facilitated by the skill of emotional intelligence at the team level.

In order to adhere to the benefits of possessing the skill of emotional intelligence at the team level, this study recognizes the collaborative team emotional intelligence as one factor for achieving team objectives. As team processes require facilitation of group members to work as a collective entity for the desired team performance (Rico, Sánchez-Manzanares, Gil, & Gibson, 2008). The functioning of the team is backed by such team processes which are considered a reliable source for the effective team coordination and facilitate team interaction. Inferred coordination happens when colleagues working in a

team foresee the activities and necessities of the other team members and adjust their behavior accordingly. At that stage, they do not need to communicate directly with each other. Rather they unconsciously understand the group norms and act accordingly (Rico et al., 2008).

The scholarly work of Sternberg, Conway, Ketron, and Bernstein (1981) and Tesluk, Mathieu, Zaccaro, and Marks (1997), Kelly and Barsade (2001) infers that while performing in a team, members' personal features which may include self-awareness, domination, and collective competencies may influence the performance of teams. Kelly and Barsade (2001) offered a model of the shared influence of good mood. It refers to the combination of the process where personal emotional experiences combined to create an emotional environment. As the emotional intelligence advocates, the skill to understand, manage and regulate others' emotions, thus group emotions and moods play a crucial role to foster team emotional intelligence (Ghuman, 2011).

Similarly, Hatfield, Cacioppo, and Rapson (1993) point out that emotional contagion occurs when a person's emotions are transmitted to a person beside it. This trend occurs at an involuntary level when an individual member of a team incline to imitate and harmonize the facial jargons of other group members. Thus, emotional convergence occurs. This imitation and synchronization can take the form of empathy within the team members. Therefore, workers of a team with similar emotions allow group members to feel understood and being valued (Ghuman, 2011). Emotional contagion promotes group's emotional sharing so that all the team members feel the emotions of others. Team EI is necessary for the development of the group emotions and employees becomes interdependence on team EI in order to effectively share their emotions (Ghuman, 2016). This leads to the development of collective emotional states.

Given the discussed relationship between leader's EI and team EI as well as team EI and team performance, this study examined whether team EI mediates the relationship between leader's EI and team performance. Keeping in view the recommendations of introducing mediator variable by Preacher and Hayes (2008); i.e. this research utilizes team emotional intelligence as a mediator in between leader's EI and team performance. As per the theoretical underpinnings of the study; leadership act as specific situational elements can substitute the administrators' leadership abilities and in this manner influence the impact of leader emotional intelligence on team performance.

Factors that may substitute leadership includes worker capability, representative autonomy requires, steady work methodology, composed workgroup and so on which may impact the relationship between leader EI and team performance. At the point when there are substitutes for leadership, subordinates' requirements for formal leadership decline if team members possess the ability of emotional intelligence and lessen the significance of team leader. It shows that team EI can go about as a substitute for leader EI and offer help for a proposed intervening relationship. According to the study by Anger Elfenbein, Polzer, and Ambady (2007) revealed that the competency of a team (by employing a measure of team emotion accuracy) to recognize team members emotions accounted for 28% of performance in teams. Hence the team level emotional intelligence is essentially important for teams which may affect the emotional behaviors of the team members and ultimate team performance enormously. This relationship is further endorsed by existing studies (e.g. Chang et al., 2012; Ghuman, 2016; Koman & Wolff, 2008; Wei, Liu, & Allen, 2016). Therefore based on the above discussion in regards to this mediating relationship; it is hypothesized as:

H4: The relationship between leader's emotional intelligence and team performance is mediated by team emotional intelligence.

3.3.5 Relationship between leader's emotional intelligence, knowledge sharing, and team performance

Leader's EI stimulates team performance by encouraging interaction amongst team members which further widens the horizons of discussions when members exchange their knowledge with each other (Liu & Liu, 2013). Thus, the availability and propagation of emotionally intelligent leader ensure members may have an access to diverse resources which may be beneficial for the team performance (Anger Elfenbein et al., 2007; Elfenbein, 2014; Schoenherr, Bendoly, Bachrach, & Hood, 2017).

The scholarly work by Goleman (2001) and Williams (1994) suggested that leaders with the ability of emotional intelligence are dynamic and capable of developing a culture which provides valuable medium to perform workers at their best of competencies by exchanging knowledge. Facilitating attitude of a leader led to the development of certain team norms which indulge in culture thereby ensuring consonance with the leader's aptitude (Dickson et al., 2001; Shin et al., 2016) indicating that creating a norm of knowledge sharing can be nurtured through leader's EI.

Knowledge sharing is one of the precarious team processes which is the fundamental component of knowledge management (Tung & Chang, 2011). The viability and effectiveness of knowledge sharing is exceptionally reliant on the behavior of leaders and members of the team, for example, members' passionate insight, their way of interaction within team mechanisms, collaboration, and their insight application to the ultimate mission of the organization (Hu & Randel, 2014; Pangil & Moi Chan, 2014). The scholarly work by Argote (2012) has noted that *"cognitive resources available within a team remain underutilized if knowledge is not shared, implying knowledge sharing does not happen automatically in a team"*. Thus the excellence of sharing knowledge in teams may be reliant on the emotional intelligence of leaders (Ansari & Malik, 2017;

Cummings, 2004; Luu, 2014; Wu, Ho, Lin, Chang, & Chen, 2013). Thus based on the above discussion it is hypothesized as:

H5: Leader's emotional intelligence has a significant positive relationship with knowledge sharing.

For effective team performance, team members are encouraged to exchange their varied knowledge, opinions, paradigms, and expertise required to accomplish team tasks. So the factor of knowledge sharing within the team by team members is considered to be perilous for the team performance. (Cummings, 2004; Faraj & Sproull, 2000; Lewis, 2004). Hence it is inferred that team performance is influenced by the construct of knowledge sharing (Plowman & McDonough, 2010); and the excellence of knowledge sharing varies in teams under diversified skills of leaders emotional intelligence and team members competencies (Mesmer-Magnus & DeChurch, 2009). The occurrence of diverse knowledge sharing by team members and the quality of expressions varies due to individual competencies and behaviors of the members consequently influencing team performance (De Dreu & Weingart, 2003; Jehn & Chatman, 2000). Hence to understand how the factor of knowledge sharing can smoothly incorporate in miscellaneous teams which can accelerate the process of knowledge sharing positively has become an important area of research for the academicians and practitioners belong to the field of human resources and knowledge management (Garavan & McCarthy, 2008; London & Sessa, 2006; Sessa & London, 2015). Hence it is suggested that:

H6: Knowledge sharing has a significant positive relationship with team performance.

Further to investigate the mediating relationship of knowledge sharing in between leader's EI and TP; the study by (Jamshed et al., 2017)) revealed that there is a significant

impact on knowledge sharing in enhancing the team performance. Srivastava et al. (2006) advocated that leadership positively connect sharing of knowledge, in turn, positively increase team performance. Consistent with the readings; to investigate the factors which contribute towards healthy knowledge sharing with ultimate impact on team performance, one of the important factor is to overcome the barriers associated with differential backgrounds of the team members and to regulate such processes for the supreme performance of teams. This research study elaborated the concept by investigating the extent of leader emotional intelligence provides in enhancing the team performance. Earlier studies (Plowman & McDonough, 2010; Mesmer-magnus & DeChurch, 2009) endorsed this mediating role of knowledge sharing on the relationship of leader' emotional intelligence and team performance. Hence based on the above argument it is deduced as:

H7: The relationship between leader emotional intelligence and team performance is mediated by knowledge sharing

3.3.6 Relationship of Team Culture, Team EI, and Team Performance

The literature discussed in the section of team culture in chapter two explains comprehensively all the aspect of organizational culture and subculture .i.e. team culture. As culture has been studied at different levels, such as group climate and organizational climate (Ashkanasy & Härtel, 2014; Härtel & Ashkanasy, 2011). Professional subcultures also influence team effectiveness, as it is concluded that culture varies in teams (Ashkanasy & Nicholson, 2003). This study investigated the relationship between team culture, team emotional intelligence and team performance of medical and paramedical teams.

Team emotional intelligence in a group develops due to social interactions that occur between group members while sharing different stuff which may be influenced by the

team culture. As a result, synergy is developed which leads to greater team performance. The differential way of communications among team members contributes to the creation of the team culture. The culture of a team is comprised of certain norms, beliefs, principles, customs or any sort of knowledge possessed by the members; thereby team members get familiar with all such knowledge that formulates the culture of a team. By practicing such team culture over a period of time lead to the team functions as a coherent team in completing team tasks (Zhou & Shi, 2011); Kaur et al., 2016). In existing literature, it is conceivable to recognize a few examinations that have implied to demonstrate that well “established cultures” outperform “established cultures “(Chatman and Cha, 2003) and empirical studies proposed that established cultures enhanced hierarchical execution by encouraging inner behavioral consistency (Sorensen, 2002).

Research provides evidence that workers belong to particular team structure, their behavior and attitude according to the prevailing culture of teams that may have an ultimate influence on teams and organizational performances (Avey, Wernsing, & Luthans, 2008). Colleagues' capacity to distinguish and pick the best strategy is more grounded when they know about their own particular and others' emotions and can control and channel the emotions suitably (Davies et al., 2007). Thus considering the above discussion it is hypothesized as:

H8: Team culture has a significant positive relationship with team performance

Further Druskat and Wolff (2008) argued in their scholarly work that the establishment of team emotional intelligence may require the introduction of a clear system of cultural values among team members. Hence, it presumes that the team members acquire certain behaviors, for example, they display behavior as they comprehend their individual emotions as well as emotions of their team colleagues so they become more emotionally aware as a collective unit. The culture in which team functions may have ample influence

on group level emotional intelligence; the atmosphere may straightforwardly influence the improvement of group standards, or the atmosphere may impact the leader EI practices, which consequently would influence the group EI (Druskat & Wolff, 2008); Shin et al., 2016). The context in which leader and team members are put have been speculated and found to affect their success accordingly.

The meta-analysis research by Ashkanasy et al.'s (2000) revealed that the phenomena of organizational culture and its relationship to the work processes do have a significant impact. Wageman (1997) stated, "*teamwork is an "unnatural act.".... "given in particular culture and context, team members will balk at the idea of relying on one another to get work done"*" (Wageman, 1997, p. 50). Therefore, it is suggested that work that is performed by the groups expects individuals to depend on each other and the culture influences the development of team emotional intelligence that ultimately boosts performance. Hence it is hypothesized as:

H9: Team culture has a significant positive relationship with team emotional intelligence.

Team culture encourages team members to grasp change, offer varying perspectives, and talk about issues straightforwardly prompting valuable and positive results. Members of a team are guided by certain team objectives which require adequate cooperation, sharing information and gaining from each other. A culture facilitates coordination as a result of the common regard, care and support of each other (Barczak et al., 2010; Bell, 2007). This is on the grounds that collaboration relies upon workers' capacities to see each other's feelings, and in addition the capacity to direct their own feelings to fit the undertaking and circumstance.

Druskat and Wolff's (2008) contention inferred that the improvement of a team EI may require instigating an expressive culture and esteem framework inside the gathering that anticipates that individuals will build up specific practices that make them more emotionally mindful as an aggregate unit. Further, the earlier investigation by Wheelan's (1999, p. 130) watched that *"groups don't work in a vacuum and are influenced by organizational impacts, for example, deficit budgets, rightsizing, and shift in the organizational life cycle and respective needs. It is demonstrated that among these contextual factors, a cultural factor of organizations and teams is the most critical impacts on a group's capacity to work successfully in an elite manner"*.

Yeatts and Seward (2000) presumed that for teams to thrive in their reality and method of working must be upheld by more extensive team culture. It is acknowledged that culture affect group execution (Shin et al., 2016); inside advancement (O'Reilly, Chatman & Caldwell, 1991), and vital achievement (Glisson & James, 2002). Based on speculation that team culture would greatly influence team EI there are very fewer studies available that examine the relationship of team culture, team emotional intelligence, and team performance altogether, therefore it is hypothesises as:

H10: The relationship between the team culture and team performance is mediated by team emotional intelligence.

3.3.7 Team Culture, Knowledge sharing, and Team Performance

As team culture has already been explained at length while explaining its relationship with another construct in earlier section so by summing up "team culture is characterized as team members shared presumptions and convictions about the association and its condition where they are working". The study by Pérez López, Manuel Montes Peón, and José Vázquez Ordás (2004) concluded that team culture collectively believes in teamwork, a way of communication, veneration, and empowerment, and influences the

knowledge sharing behavior of team members which subsequently affect team performance. It is judicious to envision that team members will seek to share standards, practices, essential suppositions that expect feel would enhance their working in teams.

The literature on teamwork recommends that there are many variables which influence teamwork so as its performance too. These variables include communication and interaction among employees, size of the group, leadership, knowledge sharing, collective learning, and teamwork. In particular, teamwork is considered to be a fundamental factor in the record of good practice (Katz, 1982; Snyder & Morris, 1984). Over the years, researchers have produced a relationship of teamwork with many constructs (Hackman, 1987; Jon R Katzenbach & Smith, 1993; Robbins & Finley, 2000). Related factors of team culture and knowledge sharing help to enable team working and its impact on team performance in certain team's climate. When employees share their knowledge, an environment of trust and cooperation is developed. Team culture stimulates employees to share their knowledge through social interactions like group discussions, through different blogs and social networks. When they socialize each other, it leads to the establishment of trust, cooperation and friendly environment (Cheng, Hailin, & Hongming, 2008). Through this networking the employees collect, store, modify, interpret, organize and utilize knowledge when they require it while doing different tasks and projects. Employees not only share their hidden difficulties and pitfalls in the project but also share their intuition based on empirical learning (Kolb, 2014). Through sharing knowledge, employees will also learn the quality of the project and the needs of the knowledge base customers (Gibbert & Krause, 2002; Michelle Bobbitt & Dabholkar, 2001). However, it will enhance the commitment of employees, trust and reciprocity, and other positive attitudes. In the absence of knowledge sharing opportunities, it is impossible to establish a knowledge-based environment to encourage employees to actively share knowledge, integration of labor issues, in charge of work, team difficulties

and success (Prasad HC, Suar, & Taraban, 2014).there are very few studies who investigated the influence of team culture on knowledge sharing. Thus it is suggested to hypothesize as:

H11: Team culture has a significant positive relationship with knowledge sharing

The importance of knowledge sharing in healthcare teams has turned out to be greatly compelled because of complex interdisciplinary tasks which require the contribution of a particular learning accessible in various areas. Quinn (1988) investigation of 84 cases of innovation yielded seven imperative components encouraging team development, and fine collaboration was one of them. Reciprocal communications can avoid misunderstandings and enhanced shared values, administration, trust and equity in interpersonal relationships, in this way advancing the democratization of knowledge (Alexandre Ardichvili, Maurer, Li, Wentling, & Stuedemann, 2006; J.-t. Yang, 2007). The knowledge creation and team learning demonstrate that KS, correspondence, and learning in associations are significantly affected by the social estimations of individual workers. Team culture and knowledge sharing are one of the imperative variables affecting team performance (He, Baruch, & Lin, 2014; Jiang, Flores, Leelawong, & Manz, 2016; Mueller, 2014). Considering the above arguments it is deduced that the supportive team culture influences team members to exchange their knowledge which ultimately augments team performance hence the suggested hypotheses is:

H12: The relationship between team culture and team performance is mediated by knowledge sharing.

3.4 Summary of Research Hypotheses

Research hypotheses can be summarized as follow:

H1: Leader's emotional intelligence has a significant positive relationship with team performance.

H2: Leader's emotional intelligence has a significant positive relationship with team emotional intelligence

H3: Team emotional intelligence has a significant positive relationship with team performance

H4: The relationship between leader emotional intelligence and team performance is mediated by team emotional intelligence.

H5: Leader's emotional intelligence has a significant positive relationship with knowledge sharing.

H6: Knowledge Sharing has a significant positive relationship with team performance.

H7: The association of leader's emotional intelligence and team performance is mediated by knowledge sharing.

H8: Team culture has a significant positive relationship with team performance

H9: Team culture has a significant positive relationship with team emotional intelligence.

H10: The relationship between the team culture and team performance is mediated by team emotional intelligence.

H11: Team culture has a significant positive relationship with knowledge sharing

H12: The relationship between team culture and team performance is mediated by knowledge sharing.

3.5 Control variable

The control variables were additionally investigated to explore the statistical impact of team performance. The control variables belong to the team administration with respect to the size of the team (Jackson, 1996); team age indicated the tenure of a team (Langfred, 2000) and a group which has been found to impact team components and team performance.

3.5.1 Team size

The size of teams may demonstrate a curvilinear association with innovative team tasks because if groups are too little, they may do not have a decent variety of perspectives and viewpoints important for advancement; while teams who comprised of so many team members may have to confront conflicting situations while interacting with each other (Jackson, 1996). Therefore in this study team size is used as a control variable; as team size has been considered in relation to analyzing team performance. Team size was evaluated by asking participants to specify the total number of members of the team to which they belong. Team size varies from 3-7 members in a team.

3.5.2 Team Tenure

There is a consensus in research that longer team tenure is beneficial for teams and is related to the expanding homogeneity of team members. This, in turn, prompts an inclination to wind up noticeably progressively segregated from a curiosity upgrading condition that could challenge and enhance the extent of existing strategies and aggregated knowledge (Chen & Kanfer, 2006; Langfred, 2000; Lovelace, 1986). Team tenure was measured as the time in months that individuals had been in the group as mentioned by the team leaders. In this study team members who have not worked minimum for a period of six months in one team are not allowed to participate in the study.

3.6 Chapter Summary

In summary, this chapter reviews and presented the research model and hypotheses in addressing the problem statement and research questions. The literature review presented in chapter two in regards to the research variables is the foundation to come up with syllogisms of deduction in regards to the formulation of hypotheses that examines the mediating role of team emotional intelligence and knowledge sharing. Moreover, it explains the literature which supports all the hypotheses of the current study. The following chapter four elaborate the research study design, research approach and research paradigm and the methods employed for the data analysis of the current research study are discussed in details.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

Research methodology focuses on the research process and the kind of tools and procedures to be used” (Mackenzie & Knipe, 2006). Thus this chapter of research methodology presents comprehensive information on the adopted research design, technique employed to determine sample from the population, ensuring reliability and validity of the research measures, pilot testing, procedure of collecting data, analytical tools and techniques used to test the research study hypotheses to explore the extent of leader emotional intelligence and team culture on team performance mediated by team emotional intelligence and knowledge sharing.). The research study employed quantitative research approach (positivism) to observe team performance in healthcare organizations of Pakistan and to empirically measure the relationships among the variables.

4.2 Research Design

The research design is a general method for defining research issues, clarifying the site decided for collecting data, fulfilling ethical requirements of conducting research, strategies for collection and analyzing data, and the part of researcher throughout the entire procedure of data collection (Creswell, 2013). According to Hussey and Hussey (1997), *“the success of the research only depends upon the selection of the right research process/steps within research design”*. Hence the research design outlines the sequential process for which accomplishment of each progression relies on the fruitful finishing of the prior steps. The fundamental steps of research design are to configure the investigation process considering the boundaries of the current study which is elaborated in further sections.

4.3 Philosophical Considerations

Philosophical considerations usually concealed in research endeavors and researchers use them as guidelines when they intend to carry research (Creswell & Clark, 2007). Hence the philosophy is a viewpoint in a research which empowers a researcher to see reality in a path in which it is depicted, and its association with information that clarifies how the truth has been watched. Denzin and Lincoln (2000) observed philosophical assumptions *“as a set of paradigms that are based on beliefs that guide a researcher’s actions to know how the world works, and what characteristics of human nature are necessary”*. According to Bryman (1992), the research based on single research paradigm is capable to provide a categorized view to reflect the multifaceted nature of organizational reality. The use of different research paradigms with underlined respective research philosophical assumptions is grounded in different assumptions and produce remarkably diversified ways to the theory building and theory elaborating. The philosophical considerations are based on the social and organizational situations that ought to adhere to the accepted views of differential paradigms which may be linked to produce an in-depth conception of organizational phenomena. The selection of research paradigm and its associated philosophical assumptions is highly dependent on researcher’s point of investigation for which the research is being carried out instead of selecting paradigm based on personal likings and commitment (Krauss, 2005). Hence researcher must select paradigm in relevance to the research problem and the phenomena for which the research is being carried out. Broadly the research paradigms are categorized into 3 different ways as depicted in figure 4.1.

POSITIVISM	INTERPRETIVISM	PRAGMATISM
<ul style="list-style-type: none"> • Determination • Reductionism • Singular • Empirical observation • Theory verification 	<ul style="list-style-type: none"> • Understanding • Multiple meanings • Social construction • Theory generation 	<ul style="list-style-type: none"> • Consequences of actions • Pluralistic • Real world practice oriented

Source: Creswell, 2013

Figure 4-1: Research Paradigms

4.3.1 Positivism

Positivism belongs to the view that genuine information depends on the involvement of senses and can be acquired by perception and investigation. Positivist scholars receive logical techniques as a way to create information. Positivism is also known as different tags such as; "Scientific Method", "Empirical Science", "Post Positivism" and "Quantitative Research". Based on positivism paradigm researcher make claims for knowledge in view of (1) cause and effect relationship, (2) Reductionism is to decrease thoughts into smaller elements led to the discrete arrangement of thoughts to test, for example, factors that constitute speculations and research questions, (3) itemized perception and estimation of target reality (factors) that exists out there in the world and (4) the testing of hypotheses that are consistently refined (Slife & Williams, 1995). Though positivist worldview kept on affecting educational and organizational research for quite a while in the late twentieth century, it was condemned because of its absence of respect for the subjective conditions of people. It views the behavior of humans as suppressed, controlled and dictated by outside conditions. Subsequently, people are dehumanized without their intention, independence and opportunity considered in the survey and translating social reality. As per the opponents of this worldview, objectivity

should be superseded by subjectivity during the time spent in the systematic investigation which offered ascend to antipositivism.

4.3.2 Interpretivism

The paradigm of Interpretivism is additionally called “Constructivism”, “Social Constructivism” and “Qualitative research”. This paradigm postulates worldview that people look for a comprehension of the world in which they live and work. They create subjective implications of their encounters or towards specific items or things. These implications are changed and may possess multiple meanings which drive the researcher to search for the intricacy of perspectives as opposed to narrowing importance into a couple of classes or thoughts. The researchers’ objective at that point, is to depend so on the participant’s perspective on the circumstance being contemplated. The inquiries end up plainly expansive and general so the members can develop the importance of a circumstance, a significance commonly produced in discourses or cooperation with other individuals (Williams, 2000). Interpretive specialists additionally concentrate on the particular setting in which individuals live and work with a specific end goal to comprehend the verifiable and social settings of the members. The understanding or significance of wonders, framed through members and their subjective perspectives, make up this worldview when members give their understanding, they talk from implications formed by social communications. Information delivered may not be summed up to other individuals or different settings (i.e., discoveries might be special to the moderately few individuals incorporated into the examination think about). It is hard to make quantitative expectations. It is harder to test speculations and hypotheses. It, by and large, requires greater investment to gather the information when contrasted with quantitative research. Information investigation is regularly tedious. The outcomes of the research are naturally affected by the researcher’s inclinations (Johnson & Onwuegbuzie, 2004).

4.3.3 Pragmatism

The third paradigm is regularly connected with the blended technique of research which is known as “Mixed Method Research”. The objective of the pragmatic research isn't to supersede both of these methodologies yet rather draw from the qualities and limit the shortcomings of both in single research studies and across other examinations (Johnson & Onwuegbuzie, 2004). Thus the attention is on the outcomes of the exploration, the essential significance of the inquiries asked as opposed to the technique, and numerous strategies for information accumulation advise the issue under investigation. In this way, it is worried about application "what works" and answers “for the issues”. Rather than techniques being critical, the issue is most vital and researcher utilize all ways to deal “with the issues” (Patton, 1990; Tashakkori & Teddlie, 1998). The pragmatism gives the premise to the associated knowledge claims such as (1) Pragmatism isn't focused on any singular reality and research philosophy. The researchers are allowed to use from both Quantitative and Qualitative presumptions, the strategies, methods, and system of research that best address their issues. (2) Pragmatists concur that exploration is dependent on historical, social, political and other contextual issues and (3) Pragmatists trust that we have to quit making inquiries about reality and the laws of nature. In this way, for mixed method analysts, realism opens the way to various strategies, distinctive world perspectives, and diverse presumptions and also an alternate concentration of information accumulation and investigation in the mixed method research (Cherryholmes, 1992; Creswell, 2003).

4.4 Research Approach

According to Saunders (2011), there are two main approaches to conducting research (1) Deduction and (2) Induction. Table 4.1 presents the salient features of the two major research approaches.

Table 4.1: Research Approach

Deduction	Induction
<ul style="list-style-type: none">• It involves hypotheses formulation in light of the suggested theory• Hypotheses are then formulated such that the variables involved can be identified and measured in an objective way. Such measurements can be undertaken for the inquiry, but the same approach could be repeated in a different situation• Data is then assembled and this data is utilized to test whether the theories supporting hypotheses truly describes reality.• The result of the inquiry has appeared in the first speculations, is either to alter or to affirm the hypothesis from which the theories were inferred	<ul style="list-style-type: none">• Induction includes perception and examination concerning the connection between meanings and activities of human subjects• Data is gathered without earlier presumptions about order and estimation.• The setting of the circumstance is consolidated into the examination procedure as the exploration tries to comprehend the interior rationale and purposive nature of human activities.• The result of the inquiry is to recommend/manufacture a dependable clarification of practices that have been watched• There is less worry about the need, to sum up, generalize understanding for research

Source: Saunders (2011)

4.5 Paradigm selection and Philosophical Assumptions

Initiating research study based on the certain paradigm and respective philosophical assumptions means researchers start their research with specified research assumptions for which they have to gather knowledge and they probably come up with the learnings and principles of that research. In regards to philosophical assumptions the researcher is entitlement to provide claims mainly in following areas: (1) “Ontology” describes what is knowledge, (2) “Epistemology” explains from where the knowledge has come meaning “the source of knowledge”, (3) “Axiology” it refers to the extent the values and norms of a researcher, (4) “Rhetoric” it provides the theoretical and formal stance to disseminate information about the gathered knowledge, (5) “Methodology” articulates the procedures of conducting research. Theses philosophical assumptions explain what actually exists, what it seems like, what are the sources that attribute to it and how these attributions and speculations are compared with each other thus segregate research into different worldviews or paradigms (Creswell, 2003) as explained earlier.

4.5.1 Positivist Research Paradigm

Considering the accomplishment of research objectives, a careful examination of the available literature was conducted which framed the premise of this research investigation. Therefore by using quantitative research approach grounded in the paradigm of positivism a survey technique was employed through the administration of a questionnaire for data collection. This research paradigm is helpful in exploring the relationships, clarifying complex connections of various elements that clarify a result, and anticipating a result from one or more factors of the research model. Previous studies (Azouzi & Jarboui, 2013; Erkutlu & Chafra, 2012; Hong et al., 2011) have employed this research paradigm for such studies. Based on cross-sectional study design this study tends to collect primary data for a total of five constructs. Out of five constructs, two are the independent (leader emotional intelligence and team culture), two are the mediating (team emotional intelligence and Knowledge sharing and one is the criteria (team performance) construct of the study. The study is carried out for the teams of healthcare organizations in Pakistan. Many cross-sectional studies have been conducted on the relevance of the current study variables in the past adopting survey method (Azouzi & Jarboui, 2013; Liu & Liu, 2013).

4.5.2 Purpose of research from a positivist perspective

The central premise of this survey-based quantitative research is to investigate the influence of leader's EI and team culture on the performance of healthcare teams working in private hospitals of Pakistan. The positivist perspective focuses to explore the relationships amongst five study constructs. Moreover, the investigation is carried out if group-level EI and sharing of knowledge withstand interceding impact on the connection between leader's EI, team culture, and team performance. Considering the aim of this research the philosophical assumptions based on positivist paradigm are presented in table 4.2.

Table 4.2: Philosophical Assumptions of Current Study

Philosophical Assumption	This study
Ontology	<p>The study grounded in Positivism paradigm; reflects the singular reality objectively. The researcher observed perceptions of teams in relation to leaders' emotional intelligence, team, and team performance. The ability of emotional intelligence for leaders led them to be more dedicated towards their associations, they have high achievement rate, utilize feelings to enhance the working of groups and settle on better choices. In literature, it has been imagined that emotionally intelligent leaders instill an atmosphere in which workers are animated to execute to their best. It shows group knowledge of EI prompts enhanced working in teams that ultimately boost team performance. The further study addresses the role of team culture in enhancing the performance of teams as teams do not work in a vacuum. Hence such human behavior as social reality observed by the researcher objectively.</p>
Epistemology	<p>The researcher empirically investigated the behavior and members of the teams working in healthcare institutions in Pakistan. The empirical-analytic inquiry is characterized by the researcher's detachment from the organizational setting. The researcher being impartial by means of objective data address the research questions. Thereafter grounded in existing theories make the data logical for empirical verification</p> <p>Existing knowledge reveals that Organizations are working in the quick and fast-paced environment. Thus, the nature of work has changed from singular level duties to aggregate level obligations. In such complex organizations, the greater deal of the work is finished by teams. Consequently, organizations progressively adopt the high development and inclusion, of elite human resources that regularly include self-guided workgroups to quickly react to ever increase changes. Teams are viewed as real mavens of learning in such settings. This advancing structure of group-based associations has incited researchers, social scientists, and professionals to focus on factors that prompt positive team performance. In these flitting and cross-practical venture groups, EI is related for adequacy and accomplishment of teams. In spite of the fact that leader EI and its positive association with teamwork is an idea that has caught enthusiasm among specialists and experts however minimal experimental thought has been given to help such declarations.</p> <p>The epistemological stance of this research is to examine the relationship between leaders EI, team culture and team performance in the health sector of Pakistan. This investigation should add to writing by proposing a mediation demonstration to make the logical knowledge empirically verified.</p>

Table 4.2, continued

Philosophical Assumption	This study
Axiology	An ideal approach to staying away from or limit any potential same-source predisposition is to gather data for different variables from various sources. In this study, data was collected from two different sources to minimize or limit the personal values of the researcher. Most surveys will be distributed by the method of in-person delivery to yield the maximum response at different times to further minimize the bias.
Rhetoric	The topic of research is based on objectivist/positivistic perspective therefore formal style language is utilized through the conduct and reporting of the study. Pre-defined agreed definition of different phenomena is used to further explore the hypothesized relationships.
Methodology	This is a deductive study which is deduced from existing theories to describe and further test the relationships amongst variables. So by integrating two different theoretical models, a proposed research model is tested.
Strategies for inquiry	This study employs cross-sectional survey method for the purpose of data collection that enables the researcher to observe the attitudes and behaviors in the relative field of research.
Methods	This study utilizes close-ended questionnaire adopted from the existing literature. All scales adopted utilized are well established in terms of reliability and validity. For the purpose of data analysis, two software's (1) Statistical Package for Social Sciences (SPSS) and (2) Smart-PLS (partial least square) are used for an assessing the measurement model and structural equation modeling for assessing the relationships.

4.6 Research Model and Measures

In order to identify the research gap and further to develop a model for the research study, a systematic in-depth literature review was conducted as explained in Chapter two and chapter three. The reviewed literature revealed the research gap which was highlighted in chapter two and three that enables the researcher to come up with the proposed research theoretical framework (see chapter three). The following section comprehensively explains the procedures employed for building the survey questionnaire considering the constructs and thereby ensuring the reliability and validity of the developed instrument.

4.6.1 Instrument Development & Validation

The researcher has developed the research instrument in a meticulous way. Existing studies framed the boundaries for operationalizing the proposed research constructs and causal relationships amongst the constructs of the current study. Consequently, the constructs and related measures were adopted from the past literature. The survey method was employed as it enables the researcher to observe the attitudes and behaviors in the relative field of research. Moreover, the questionnaire method is a standout amongst the most well-known types of information gathering for assessing the potential causal connections between work practices and results and was esteemed suitable for this examination (Hinkin, 1998). This research utilizes the multi-dimensional measures and multi-items in order to assess the variables of the proposed research framework as explained in chapter three. The adopted measures are from well-established existing scales validated in past studies. For ensuring further validation of the measures, the constructs went through construct measurement validation stage by conducting an expert panel comprising of academicians and practitioners relevant to the field of research. The purpose of the expert panel is to get more knowledge on research variables. The basic aim is to refine and improve questionnaires in order to gauge whether respondents really understand, have confusion or have any suggestion in order to improve the questions.

Two different questionnaires were designed for this study (see Appendix B). Each questionnaire is segregated into two sections. The initial section is designed to seek information of the respondents personal and the team characteristics based on nominal and ordinal scaling, while section two consist of subsections that include instruments of leader emotional intelligence, team culture, team EI, knowledge sharing, and team performance. The instrument consisted of 67 items in whole measuring independent variables, mediating variables and dependent variable through an administered questionnaire. In the instrument, all constructs are being measured by multiple items or

statements, both positively and negatively phrased. The list of the constructs used in the research model measurements and the relevant sources is explained in the following section.

4.6.2 Operationalization of Variables

The constructs of the current study were operationalized with well- established published scales. The adopted scales revealed adequate psychometric properties in previous studies. The responses were gauged on 5-7 point Likert-type scales in which the point” 1” refers to the absolute level of disagreement and point” 7” refers complete agreement with the statements. Further, the responses from individual members of teams against measures shall be aggregated at a team level.

4.6.2.1 Leader’s Emotional Intelligence

The literature provides different instruments for measuring EI (Carmeli et al., 2009). All things considered, when concentrating on ability model of EI, Mayer et al. (2008) clarified that this EI measure displays both psychometric and incremental predictive validity. A wide collection of measures have been constructed for measuring emotional intelligence, the instrument “Mayer Salovey Caruso Emotional Intelligence Test” (MSCEIT) created by Mayer et al. (2008) has significant acceptability. This instrument included 141 statements which take at least 45 minutes to fill in the complete survey. Thus, this scale is not appropriate for this examination. Conversely, the scale developed by the Boyatzis (1982) distorted in ensuing examinations as some of its items are overlapped with other constructs (Stubbs, 2005)

This examination uses the Wong and Law (2002) scale. The Wong and Law Emotional Intelligence Scale (WLEIS) is most appropriate for this examination because of 16 number of items which takes around 10 to 15 minutes of filling out the questionnaire. A 7-point Likert scale is ordinarily utilized for recording the reactions of members (Law et

al., 2004; Schutte et al., 1998; Sy et al., 2006; Wong & Law, 2002). The Wong and Law scale depend on the four-dimensional meaning of EI: self-emotion appraisal, other's emotion appraisal (OEA), use of emotions (UOE) and regulation of emotions (ROE).

The 16 items WLEIS is divided into 4 dimensions, each subscale consist of 4 items. The dimension of Self Emotion Appraisal include items to gauge individual abilities to be well aware of his own emotions. The item includes s e.g. "He or she really understand what he or she feels. The second dimension of "The Others' Emotion Appraisal" dimension describes the leader's ability to understand the emotion of his or her team members. An illustration of the item is "my leader always know others' emotions from their behavior." The third dimension of "Use of Emotion" exhibits leaders' ability to utilized emotions in an appropriate manner for the effective team performance. An example of items is "I always tell myself I am a competent person." The fourth and the last dimension i.e. "Regulation of Emotion" of the WLEIS explains the leader's ability to regulate the emotions in a way that possess control over emotions by suppressing the negative emotional outcomes. The item includes such as "leader has good control of his or her own emotions."

Past research encouraged the four-factor structure of the WLEIS. The WLEIS score is emphatically connected with life fulfillment, academic performance, work execution, and employee satisfaction and has guide significance to the organizational setting (Davies et al., 1998; Libbrecht, Lievens, & Schollaert, 2010). The quality assessments (coefficient alphas) for the four dimensions of "self-emotion appraisal", "uses of emotion", "regulation of emotion", and "others' emotion appraisal" were .89, .88, .76, and .85, respectively (Wong & Law, 2002). Liu and Liu (2013) utilized WLEIS scale to survey EI of leaders and reported adequate reliability with an alpha coefficient of .93 for this scale. There were various studies which demonstrated unwavering quality and validity of this

four-factor structure of WLEIS scale (Fukuda, Saklofske, Tamaoka, & Lim, 2012; Ng, Wang, Zalaquett, & Bodenhorn, 2007; Whitman, Rooy, Viswesvaran, & Kraus, 2009). Karim (2010) demonstrated the legitimacy of this scale in area Baluchistan of Pakistan. Consequently, this scale is adopted for this research study.

4.6.2.2 Team Culture (TC)

The second construct of this study which may facilitate and have an influence on team performance is team culture. In order to detain the team culture, the team climate inventory was used developed by Anderson and West (1998). This scale was based on four-factor theory with well-established reliability and validity in healthcare reforms (Anderson & West, 1998; Kivimaki & Elovainio, 1999; Ragazzoni, Baiardi, Zotti, Anderson, & West, 2002).

The primary unique version of this scale is consist of first 38-items which was condensed by Kivimaki and Elovainio (1999) to a 16- items of the shorter version which has depicted satisfactory of reliability and validity. West's four-factor demonstration is based on the innovations by groups are impacted by “vision”, “participative safety”, “task orientation” and “support for innovative ideas”.

Teams whose individuals concur upon clear and practical targets, take an interest in basic leadership, are resolved to accomplish the most astounding conceivable measures of performing tasks, and get bolster for inventive thoughts, will probably grow new thoughts and perform well. The items of TCI-short inventory define dire importance which reveals the importance of the four dimensions being assessed in team culture. The frequency with which the healthcare organization will be assessed demonstrates that Team climate inventory is one of the best measures that influence the emotional norms and values in the healthcare sector. The four dimensions are elaborated in chapter two of

the literature review. A 5-point Likert scale is ordinarily utilized for recording the reactions of team members.

4.6.2.3 Team Emotional Intelligence

The literature reveals numerous scale to assess team emotional intelligence scale. The Team level emotional intelligence measure developed by Druskat et al. (2003) is based on the nine ECG norms measured by the instrument. 1 to 7 Likert scale is used for rating responses. This scale had an alpha score close to or above 0.70 (Koman & Wolff, 2008). Stubbs (2005) used this scale and proved the validity of scale developed by Druskat et al. (2003). The famous scale of evaluating Group Emotional Intelligence created by Druskat et al. (2003) consists of 149 items comprised of nine norms. In ECGN scale, team members self-evaluated their group's conduct as per each of the nine ECG norms measured by the instrument. Therefore this scale is not suitable for this study due to the extraordinary number of items for measuring just one construct.

Though the scholarly works discover various scale to evaluate group level emotional intelligence. Hence this study utilizes 16 items Team EI scale developed by Jordan and Lawrence (2009). In this study, the construct of Team EI is being evaluated as higher order construct like other constructs of the study, therefore, considering the number of items and the time to fill in the questionnaire this scale is deemed appropriate for the current study. Team EI scale is divided into four dimensions (1) “awareness of own emotion”, (2) “management of own emotion”, (3) awareness of others’ emotions, and (4) “management of others’ emotions”. Each dimension was measured by four statements. The studies by Borges, Kirkham, Deardorff, and Moore (2012) and Joseph and Newman (2010) utilized this scale and demonstrated validity to gauge group level EI and detailed high unwavering quality and legitimacy of this scale.

4.6.2.4 Knowledge Sharing

The Knowledge sharing was surveyed in light of the eight-items scale created by Bartol et al. (2009), which best fits the three sorts of information sharing practices (i.e., arrangement, socialization, externalization) clarified prior in chapter two of literature review under the section of knowledge sharing. The justification of utilizing this scale is the premise of the contention that information sharing in workgroups could be both “explicit” and “tacit” (Bunderson, 2003; Srivastava et al., 2006). This scale was created to mirror the sharing of the two sorts of knowledge (Bartol et al., 2009). To measure the responses 1 to 5 Likert scale was utilized for rating reactions.

4.6.2.5 Team Performance

The performance in teams was evaluated utilizing 11 items, embraced from (Shortell et al., 1991) This instrument is generally utilized for measuring team performance in healthcare services. The attuned scales measure three features of team performance: overall team effectiveness which incorporates how successfully colleagues address patient issues and gives quality arrangements and judging the turnover. This scale is proposed and used by studies Temkin-Greener, Gross, Kunitz, and Mukamel (2004) and Reader, Flin, Mearns, and Cuthbertson (2009) for measuring team performance in a healthcare organization. This scale has proven reliability and validity and exhibits that each item is a strong predictor of its individual basic idea. These scales give great result in terms of effective team outcomes and monitoring the turnover in teams. Moreover, the scale is considered suitable for use in elaborated survey-based research due to well-established reliability and validity. These scales were developed by original authors in a way that can be managed easily for busy health professionals.

4.6.2.6 Control Variables

Additional covariates were also explored to study the demographic profile of the team members and the features of each in teams in terms of team characteristics. The study is statically controlled by the (1) team size and (2) team tenure. For measuring the team size in this study, the questionnaire offer option in which team size will be measured by asking for the respondents to indicate the aggregate number of team members. The team size differs from 3-7 individuals in each team. Further for monitoring the team tenure; Team members who have not worked minimum for a period of six months in one team are not allowed to participate in the study. Table 4.3 briefly explains the summary of the adopted well-established measures.

Table 4.3: Adopted Measures

Variables	Scale	Dimensions	Scale	No. Of Items	Source
Leader's Emotional Intelligence	Wong and Law (2002) scale to assess Leader EI.	4	7-point Likert scale	16	Wong and Law (2002)
Team Culture	Anderson N, West MA: Team Climate Inventory: (1998)	4	5- point Likert Scale	16	Anderson and West (1998)
Team Emotional Intelligence	Jordan and Lawrence (2009) WEIP-S	4	7-point Likert scale	16	Jordan and Lawrence (2009)
Knowledge Sharing	Bartol, Liu, Zeng, & Wu (2009)	-	5-point Likert scale	8	Bartol et al. (2009)
Team Performance	ICU Nurse-Physician Questionnaire (1991)	3	7-point Likert scale	11	Shortell et al. (1991)

4.6.3 Expert Panel

Researcher seeks advice from the expert panels at the point when a scale is being created. The aim is to gather opinion from expert panels in regards to the relevancy of the adopted scale whether they comprehend the formulated statements, or ask whether the items appear to them to measure the same variable for which they are designed, however, they don't commonly ask respondents what they think about the items comprehension (Bhattacharjee, 2012). Another objective to consult expert panel is to evaluate the face validity of the developed scale. By doing so; experts look into issues and ambiguity in the items measuring the construct and direct the researcher in regards if any specific items need to be retained, deleted or rephrased to ensure the validation of the contents.

Researchers very often solicit an expert panel in order to audit surveys as a strategy for distinguishing question issues, breakdowns in the process of answering questions, and other potential estimation mistakes in survey questionnaires (Hardesty & Bearden, 2004). There can be numerous possible varieties of expert reviewers ranges from study methodologists, field experts, academicians, or other individuals comfortable with questionnaire configuration and can extricate potential issues within survey (Rothgeb, Willis, & Forsyth, 2007). The two essential objectives of a reviewer are to uncover issues with a study instrument so they can be helped preceding going into the field or to sort things that are pretty much liable to display estimation errors. The numbers of the expert panel have a tendency to belittle, from a few master methodologists (Jansen & Hak, 2005; Rothgeb et al., 2007) to more than 20 reviewers (Rothgeb et al., 2007). Generally, the expert panel is considered a moderate and reasonable technique for assessing surveys (Presser & Blair, 1994).

A cover letter along with the evaluation set which contains study purpose and instruction for the purpose of validating the study constructs associated with the construct

names, construct description, were emailed to the selected members of the panel. Considering the research area and target population; the expert panel was comprised of research methodologist and health professionals were gathered, who have the expertise and possess hands-on experience. The details of the four expert reviewer are presented in table 4.4.

Table 4.4: Expert Panel Details

Expert Reviewer	Profession/Designation	Academic Qualifications	Experience
1	Clinical Nurse Manager	BS Nursing	Field expert – 15 years of experience
2	Professor & Head Of PIQC Institute of Quality	Ph.D. Engineering Management	Research Methodologist/ Academician- 28 years of experience
3	Fellow Medical Oncology	FCPS Medicine	Field expert – 10 years of experience
4	Doctor	MBBS – Di Cardiology	Field & Management Expert – 27 years

Their opinions were considered to improve the validity of survey instruments by either including negatively phrased statements or correcting the wording of the items in order to make it easy and simple for the respondents. No further significant changes were made in the measurements. A detailed validation report is attached in Appendix C.

4.6.4 Pre-Testing

The pre-testing of the designed survey instrument is essential before distributing the questionnaire to actual respondents (Babbie, 2007). It assists the researcher to receive feedback on the contents and format of the designed survey as the survey may contain certain limitations so it the instruments ought to pass through the stage of pre-testing. Another purpose to execute the process of pre-testing is to ensure the contents of the designed questionnaire are reliable and valid in all aspects of consistency and clarity (D. Collins, 2003). Therefore a panel of nine medical field experts from the healthcare

institutions of Pakistan was selected to ensure the content validity of the study constructs. The instrument of the study was pre-tested using two approaches, as the team is composed of staff with diverse levels of education and experience from medical professionals to technicians. The questionnaires were reviewed by the experts of the field and research methodologist to confirm the appropriateness of language. The main purpose to conduct pre-testing is to ensure the survey inaccurate in terms of the following: (1) meaning of each item is clear, (2) number of items to measure each construct, (3) language used is easy to understand, (4) instruction of instrument stated clearly, (5) The measurement scale is clear and (6) spell and grammar. The beneficial advice and recommendations received from the experienced healthcare professionals were incorporated to refine the instrument. After incorporating the suggestions into the final survey instruments a pilot study within the target population of the research study was conducted to gauge the reliability by employing statistical procedures. However, the minor changes were made to finalize the instrument after receiving the feedback from the pilot study sample comprised of healthcare teams.

4.6.5 Pilot Study

The third stage of refining the instrument was pilot study preceding to the actual data collection for the research study. The premise of pilot test was to ensure the designed survey questionnaire contains the logical and clear flow of the statements (Creswell, 2013; Teijlingen & Hundley, 2001). Further, the purpose of the pilot study was to get more knowledge of research variables. For measuring the internal consistency of the variables, a pilot study was conducted by collecting data from 27 teams comprising of 104 respondents from two hospitals of Lahore Pakistan. The basic aim was to refine and improve questionnaires in order to gauge whether respondents really understand, have confusion or have any suggestion in order to improve the questions. Through the process of networking, the researcher figured out to distribute questionnaires among the medical

and paramedic staff of the hospitals working in teams. Reliability analysis to check the value of Cronbach's alpha were calculated; results of the pilot test are presented in table 4.5.

Table 4.5: Reliability results from Pilot Testing

Variables	Cronbach Alpha	No. of Items
Leader Emotional Intelligence	.887	16
Self-emotion appraisal	.856	4
Another emotion appraisal	.826	4
Use of emotions	.665	4
Regulation of emotion	.838	4
Team Culture	.872	16
Vision	.764	4
Participative safety	.661	4
Task Orientation	.690	4
Supportive Innovativeness	.656	4
Team Emotional Intelligence	.893	16
Awareness of own emotions	.836	4
Management of emotions	.650	4
Awareness of other emotions	.758	4
Management of others emotions	.698	4
Knowledge Sharing	.886	8
Team Performance	.790	11
Absolute technical quality	.681	5
Meeting patient member needs	.781	2
Turnover	.706	4

The acceptable threshold value for the well-established scales is ought to be 0.9 and in case of newly established scale, the value of 0.7 is an acceptable value of Cronbach's alpha (Gliem & Gliem). However, the alpha value below 0.5 is not acceptable. The results of the pilot study revealed that the values of all multi-item scale fall within the range. Further open-ended questions were also asked to gauge whether respondents really understand the research variables, have confusion or have any suggestion in order to improve the statements measuring the constructs. Following are the question and few responses to additional questions asked to seek understanding of respondents regarding the research study constructs: (1) What do you understand the leader's emotional intelligence and team performance? (2) Do you think leader emotional intelligence

enhance knowledge sharing behavior among team members? If YES, how? (3) In your opinion, what other things are important for leadership behavior to enhance team performance? (4) As a team member, how do you think team culture play an important role in developing team emotional intelligence? (5) comments/suggestion (if any) to improve questionnaire. The table 4.6 explains few responses to open-ended questions asked in the pilot test.

Table 4.6: Summary of open-ended responses from Pilot Study

Responses of Q1	Responses of Q2	Responses of Q3	Responses of Q4	Responses of Q5
Leader understands him as well as emotions of others	Yes	Ability to lead from the front	By setting goals & appraising the performance	
Leader EI is the way leader organize all team issues.	Yes a lot	Positive attitudes towards goals & coordination in the team.	Play an important role	-
-	Yes	-	-	Precise
-	Yes	-	-	Long
Knowing emotions	Yes	Being role model	Very much	Good and easy to understand
Understanding of his own and his subordinates emotions	-	Emotional intelligence	Yes	Already improved
Understanding of emotions and performing together	-	Culture	Yes	Ok
Foreseeing oneself and others emotions	Yes	Be available	Yes	-
-	Yes	-	Yes it influences	Comprehensive
-	YES	Respect for each other	Mutual cooperation	Ok

4.7 Research Sample determination

4.7.1 Population

The population of interest for this research study is embraced of healthcare teams working in healthcare institutions of Pakistan. According to Ministry of Finance (2014), the aggregate number of healthcare institutions in Pakistan is 1096. Pakistan has two parallel frameworks of running healthcare reforms, i.e. (1) public hospitals and (2) private Hospitals. The share of private sector hospitals had been minor in the beginning since the majority of healthcare professionals started as private practices and changed into fully operational hospitals over a period of time. At present, the services of healthcare are managed for the most part in the private segment which represents roughly 80% of all outpatient visits (Bibi, Channa, Siddiqui, & Ahmed, 2011). Growing population has offered to ascend to the popularity of private sector hospitals to supplement the services of public sector healthcare institutions. With increasing number of patients, the services of private hospitals are continued to be developed throughout the years, which appears to have turned into a symbol of a guaranteed quality care and treatment. However, due to the provision of quality services, private sector hospitals are very costly and contributing towards the creation of a business as well. Among the targets of any private medicinal services association are principal to serve humanity, strive for the healthy population and furthermore to generate revenues to keep up its status of quality services (Shah, Hussain, & Rahman, 2016). The private's sector hospitals are mostly the panelist of corporate and health insurance agencies which is another source of their business by providing the proportion of sales. The infrastructure of private hospitals is mainly circulated in the urban areas which inclined researcher to draw the study sample from the largest private hospitals of Lahore in the province of Punjab. The city of Lahore is the largest city in the province Punjab and densely populated in urban areas. Out of total 52 healthcare institutions in Lahore, 38 hospitals are the private hospitals while others are public. The

demand for the private healthcare services continues to grow with the proportion of the growing population and the increased awareness of the population in regards to quality healthcare services. The important statistics of healthcare sector of Pakistan is exhibited in table 4.7.

Table 4.7: Statistics of Healthcare in Pakistan

Year	Number of Hospitals	Number of Beds	Doctors	Dentists	Nurses	Persons per doctor	Persons per dentist	Persons per bed
2013-14	1,096	111,953	167,759	13,716	86,183	1,099	13,441	1,647

Source: Economic Survey of Pakistan, 2014

Punjab constitutes the greater part the number of population in Pakistan. Despite the broad system of medicinal services offered, the health status of the general population is below the desired level. All the services and infrastructure disseminated in the province of Punjab is regulated by Punjab Health Department. The provision of all types of healthcare services is being overseen by this regulated body. Table 4.8 outlines the statistics of healthcare in Punjab.

Table 4.8: Study Population

Year 2014-2015	
Total Punjab Population	101.4 million
No. of Hospitals	52
Private hospitals	32
Public	18
Registered doctors	87377
Registered dentists	667
Registered Nurses	12053
Population per doctor	1146

Source: List of Hospitals- www.pmdc.org.pk

4.7.2 Unit of Analysis

The unit of analysis is the significant substance that is being analyzed in an examination. It is the 'what' or 'who' that is being considered for analysis. In social sciences research, the most common unit of analysis are "Individuals", "Teams or Groups" and "Organizations" (Downe-Wamboldt, 1992). The current study is designed to study the team performance of healthcare institutions in Pakistan. The study is focused on the responses in forms of teams comprised of team leaders and team members. hence the unit of analysis in this study is team encompassed of health sector leaders i.e. doctors, nurses and paramedic staff from selected largest private hospitals in Lahore, Pakistan.

4.7.3 Sampling Frame and Sampling technique

According to Malhotra and Indrayan (2010) Malhotra (2010), *“A sampling frame is a representation of the elements of the target population. It consists of a list or a set of direction for identifying the target population”*. The strategy employs to draw sample greatly influences the quality of data and thereby inferences drawn from the data (Mertens, 2003). Broadly the sampling techniques can be categorized as probability and non- probability sampling with further subcategories of each sampling category. A technique of probability sampling refers to some type of randomized selection of subjects while in non-probability sampling the purposeful selection of the subjects is involved. Considering the objectives of this research study purposive sampling, a type of non – probability sampling was applied because the respondents for this study are not common employees; rather they are working at different positions in different medical and para-medical departments and are working in teams. Purposive sampling was used on the basis of the following criteria: (1)The number of team members exceeded 2 preferably between 3 to 7; (2) Team members had worked together minimum for six months; (3) One formal team leader well-recognized by team members;(4) Virtual-

teams and long-distance communication teams are not included. The target teams of employees from largest private hospitals of Lahore Pakistan were identified and thereby approached to seek the filling of the questionnaire after the permission of the respective hospital administrator.

4.7.4 Sampling Size

Determining sufficient sample size is important for a piece of research which depends on certain aspects such as suitable data analytical techniques (Malhotra & Indrayan, 2010). To justify adequate sample size for this study two methods were employed as follows: (1) 10 times rules (Barclay, Higgins, & Thompson, 1995) and (2) sample size estimation by using G* power analysis (Buncher et al., 1997).

To determine adequate sample using 10 times rule of Barclay et al. (1995) was employed which suggested that the sample size is computed which equal to 10 times larger than the number of structural paths pointing towards particular latent variable in PLS path model. In this study, the total number of path relationships in PLS model is twelve (12) therefore the minimum sample size requirement for this study is 12×10 is equaled to 120 teams. Hence the study sample is large enough to justify the minimum sample size requirement.

According to Hair, Ringle, and Sarstedt (2011); 10 times rule offers a rough guideline for minimum sample size requirements and the statistical analysis like PLS-SEM requires some sort of statistical power analysis to justify the appropriate the sample size. Therefore in addition to the time's rule G* power techniques were also employed to estimate adequate sample size for this study which suggested a total of 125 teams, However, a total of 218 teams are purposively selected from large private sector hospitals of Lahore, Pakistan. The hospitals are selected based on size and details are described in table 4.9.

Table 4.9: List of targeted Hospitals

Sr. No	Hospital	No. of Departments	No. of beds	No. of doctors	No. of nurses	No. of employees
1	National Hospital Defense	41	275	165	235	1800
2	Hameed Latif hospital	35	250	115	200	1780
3	Doctors Hospital	28	250	90	370	1650
4	Omar Hospital	32	220	110	265	1200
5	Shaukat Khanum Hospital	37	210	260	450	1800
6	Masood Hospital	43	350	275	350	2000
7	Surgimed Hospital	20	180	173	115	1450
8	Farooq Hospital	36	510	220	400	2100
9	Ammar Medical Complex	37	210	260	450	1800
	TOTAL	156	1400	858	1535	8780

Source: List of Hospitals – www.pmdc.org.pk

4.8 Data Collection

The procedures employed for obtaining data from the respondents are referred to as data collection. In this research study, the instrument used to collect data for the study construct is the “survey questionnaire”. A cover letter (see Appendix A) describing the objectives and scope ensured respondents about strict confidentiality. The data was collected from two sources. The questionnaire of leader EI, team culture, and knowledge sharing and team emotional intelligence was distributed among team members whilst questionnaire for team performance was distributed among leaders. The collection of data from two different sources ensure eradication of potential bias which may arise due to a collection of data from the same source (Mouton, 2001). In order to collect the data following steps were taken: (1) an initial letter was sent to the human resources department of each selected hospital describing the study design and objectives. It had been requested in the letter to refer the desired teams fulfilling the objectives of the research, (2) after receiving the response, the researcher reached the research site and assured the respondents about the confidentiality and anonymity of that their responses.

These instructions were also mentioned in the cover letter of each questionnaire. Figure 4.2 describes the entire process of data collection.

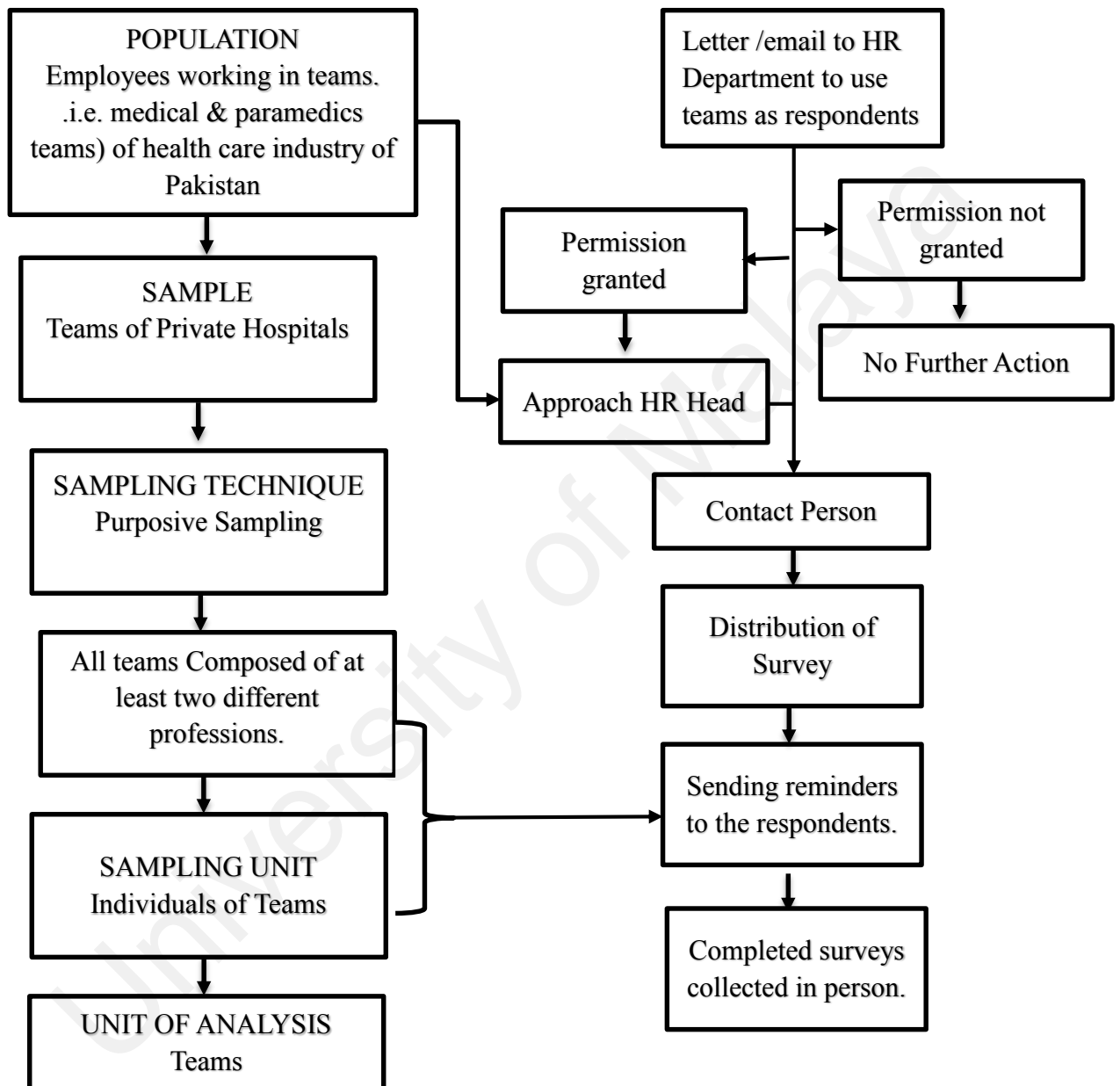


Figure 4-2: Data Collection Process

4.9 Team level construct from Individual level survey Data

In social sciences, group and teams are widely used phenomena while conducting organizational studies. Workers and employees are accumulated in work gatherings to form management teams, project teams, administration groups, quality circles, social gatherings and many others for achieving desired team-based objectives. Such teams are a boundless and irresistible source of information for organizational and management researchers. Despite the fact that teams have diverse projects and functions, the common issue for measuring teams, groups and organizational performance is to aggregate information to estimate team level phenomena. In organizational studies the group level phenomena can be captured in numerous ways and the most common approach is to collect data from individuals through survey questionnaires and aggregate individual data to the team level phenomena (e.g. Klein, Conn, Smith, & Sorra, 2001; Rousseau, 1985) depending upon the nature of the research questions.

According to Klein et al. (2001) and Rousseau (1985), collecting data from individuals and aggregating such data to the group level phenomena management researchers adopt composition model. A composition model explains how a construct that is operationalized at one level of examination is identified with another type of construct at an alternate level (Chan, 1998; Rousseau, 1985). In organizational research, composition models apply to basically any circumstance in which lower level data is utilized to make assumptions about a higher level of the construct. While the focus of this research is the individuals are the original source of data working in teams, this situation similarly applies to, for instance, divisions in associations, students in classrooms or subordinates and leaders. In this research prior to data aggregation following steps were performed to evaluate the reliability and validity of the constructs: (1) to assess the agreements within teams calculation of $r_{wg(j)}$ values for all variables and for all teams (James, Demaree, & Wolf, 1984) ; and (2) computation of Intraclass Correlation Coefficients (ICCs) by using two-

way random model in SPSS (Shrout & Fleiss, 1979). The intraclass correlation coefficient is further evaluated as ICC(1) to assess the statistical significance and absolute value, and ICC(2) to assess the reliability of a measure (Mierlo, Vermunt, & Rutte, 2009). Basing on these assumptions the aggregation of data is carried out and describes in chapter five.

4.10 Data Analysis

Considering the assumptions and methodology of quantitative research. The data was analyzed after collection from selected healthcare institutions. The data were analyzed to evaluate the formulated hypotheses which were discussed in chapter three; the survey questionnaire in form of measurable items provided the data for further analysis. The following section of this chapter articulates the statistical tools utilized by the researcher primarily for conversion of raw data into the meaningful data to further make the possibility of logical analysis. The researcher employed two software (1) Statistical Package for Social Sciences (SPSS, version 23.0) and (2) Smart-PLS (Version 3. M3) for structural equation modeling (SEM) to test the research hypotheses. Following are the main tasks performed by utilizing SPSS: (1) To prepare the data for analysis (2) checking and treating missing values (3) To calculate inter-rater agreement within teams (4) to calculate descriptive statistics for demographic analysis. Further Smart-PLS was used for the following statistical techniques: (1) to evaluate the confirmatory factor analysis (CFA) which ensures the reliability and validity of the measurement model and (2) to test the research study hypotheses by evaluating the structural model. The research study employed structural equation modeling which is discussed in the subsequent section.

4.11 Structural Equation Modeling

For structural equation modeling (SEM), researcher employs a variance-based partial least square (PLS) statistical method for assessing the path models utilizing Smart-PLS version (3) (Ringle, Wende, & Becker, 2014). The premise of PLS-SEM is to assess the

hypothesized relationships as exhibited in the research model (see chapter 3). The technique of SEM is capable to evaluate various hypothesized relationship amongst the study constructs simultaneously integrated into the conceptual model of the research study (Schumacker & Beyerlein, 2000) which is contrasting to "first-generation" statistical techniques such as regression analysis, analysis of variance. Hence SEM is known as "second-generation" techniques of multivariate analysis which possess the capability to outweigh restrictions of "first-generation techniques" (Haenlein & Kaplan, 2004). Further SEM approach can be covariance-based, such as those used in LISREL and, or variance-based (or components-based), such as PLS analysis.

Research Specialists typically concentrate on the structural model more than the connection amongst measures and their separate develops (Jarvis, MacKenzie, & Podsakoff, 2003). Subsequently, they treat all variables similarly paying little heed to whether a specific construct is formative or reflective in nature. Truthfully the relations amongst constructs and their measures are seen as speculations which require assessment within the structural paths. Hence the misidentification of the nature of constructs in relation to either formative or reflective constructs may incline to type- I and type-II errors that may have an adverse impact on the advancement of the theory due to associated incorrect data analytical outcomes (Edwards & Bagozzi, 2000). In order to specify whether the construct is formative or reflective, Jarvis et al. (2003) recorded the significant four standards as delineated in table 4.10.

Table 4.10: Decision rules for identifying the nature of constructs

Sr. No.	Criterion	Formative Model	Reflective Model
1	<ul style="list-style-type: none"> Should the indicators have the same or similar content? Interchangeability of the indicators/items Do the indicators share a common theme? 	<ul style="list-style-type: none"> Indicators need not to have the same content. Indicators are not interchangeable. Dropping an indicator may alter the conceptual definition of the construct Do not share a common theme. 	<ul style="list-style-type: none"> Indicators are interchangeable. Indicators should have the same or similar indicators Dropping an indicator should not alter the conceptual domain Indicators should share a common theme.
2	<ul style="list-style-type: none"> Direction of causality from construct to measure implied by the conceptual definition Are the indicators (items) (a) defining characteristics or (b) manifestations of the construct? Would changes in the construct cause changes in the indicators? Would changes in the indicators/items cause changes in the construct or not? 	<ul style="list-style-type: none"> The causal direction is from items to construct Indicators are defining characteristics of the construct Changes in the construct do not cause changes in the indicators. Changes in the indicators should cause changes in the construct 	<ul style="list-style-type: none"> Direction of causality is from construct to items Indicators are manifestations of the construct Changes in the construct do cause changes in the indicators Changes in the indicator should not cause changes in the construct
3	<ul style="list-style-type: none"> Nomological net of the construct indicators Are the indicators/items expected to have the same antecedents and consequences? 	<ul style="list-style-type: none"> Nomological net for the indicators may differ Indicators are not required to have the same antecedents and consequences 	<ul style="list-style-type: none"> Nomological net for the indicators should not differ. Indicators are required to have the same antecedents and consequences
4	<ul style="list-style-type: none"> Should a change in one of the indicators be associated with changes in the other indicators? Covariation among the indicators 	<ul style="list-style-type: none"> Not necessarily Not necessary for indicators to covary with each other 	<ul style="list-style-type: none"> Yes Indicators are expected to covary with each other

Source: Hair et al. (2011)

In the context of business research and information systems, the statistical technique of Partial Least Squares (PLS-SEM) is preferable as this approach is more flexible. Such as studies designed for prediction purpose which does not desire large samples, normal

distributions and probably works well without considering the distributional issues and works well with different types of scale (Nominal, Ordinal, interval scale). The PLS-SEM is appropriate technique (Hair, Sarstedt, Hopkins, & G. Kuppelwieser, 2014; Haenlein & Kaplan, 2004). Whereas the “covariance-based” SEM procedures are not preferred for all types of research as such techniques are only capable to deal with reflective constructs (Henseler, Ringle, & Sinkovics, 2009). The model of this research study has both formative and reflective constructs. Therefore, PLS-SEM (also called PLS path modeling) is appropriate for this study as it allows for the simultaneous assessment of structural path models. Moreover, PLS-SEM permits both reflective and formative constructs to be examined together (Chin, Marcolin, & Newsted, 2003). The table 4.11 describes the two contrasting approaches of SEM which are (1) CB-SEM and (2) PLS-SEM.

Table 4.11: Two approaches to SEM

CB-SEM	Characteristics	PLS-SEM
CB-SEM is utilized if research objective is either to test a theory or confirm the theory or to make a comparison between alternative theories	Research Objectives	The objective is to predict key target constructs or identifying key “driver” constructs. Recommended for exploratory research or an extension of an existing structural theory, select PLS-SEM.
CB-SEM is selected for large data set and/or normal data	Data Characteristics and Algorithm	If the sample size is relatively low, and non-normal data distribution selects PLS-SEM.
Select CB-SEM; if error terms require additional specification, such as covariation.	Measurement Model Specification	If formative constructs are part of the structural model, select PLS-SEM.
If the model is non-recursive, select CB-SEM.	Structural Model	If the structural model is complex (many constructs and many indicators), select PLS-SEM.
The approach of CB-SEM is preferred if research requires global goodness-of-fit criteria.	Model Evaluation	The PLS-SEM is considered best approach if a researcher needs to use latent variable scores in subsequent analyses.

Source: Hair et al. (2011)

After contrasting PLS-SEM and CB-SEM based on above characteristics the researcher decided to employ PLS-SEM analytical techniques due to following explanations: **Firstly**, the approach of PLS-SEM is suitable when researcher intends to explore an existing structural theory. Thus the current research develops an integrated research model which extends earlier models by integrating social exchange theory and emotional intelligence theories. **Secondly**, PLS-SEM is recommended for those studies who has formative constructs. The current research study has four higher order formative constructs and these constructs have further reflective latent variables. **The third** reason to employ PLS-SEM as this approach is more suitable to explain complex relationships amongst the different variables. The current research model is formulated on second-order constructs which involves complex relationships. **Forth** PLS-SEM is capable to deal with small as well as large sample size, in addition to non- normal data (Chin, 2010). However, the sample size for the current study is adequate and non-normal. **Fifth**, PLS-SEM is more suitable if the researcher intends to utilize the latent construct scores. However, for the current study, latent scores were utilized to analyze the second order constructs such as Leader emotional intelligence, team culture, team emotional intelligence and team performance. **Sixth**, a reason to select PLS-SEM as it is well known and widely applicable approach for investigating the path coefficient models (Saunders & Lewis, 2009). Thus it is suitable to use PLS-SEM in testing the model for the current study.

4.11.1 Evaluating PLS Path Model

According to the Chin (1998) has specified the criteria to evaluate partial least square path models. The criterion for evaluating PLS path models is a two-stage process: (1) The assessment of the outer model and (2) the assessment of the inner model. Figure 4.3 articulates the process of PLS structural Models.

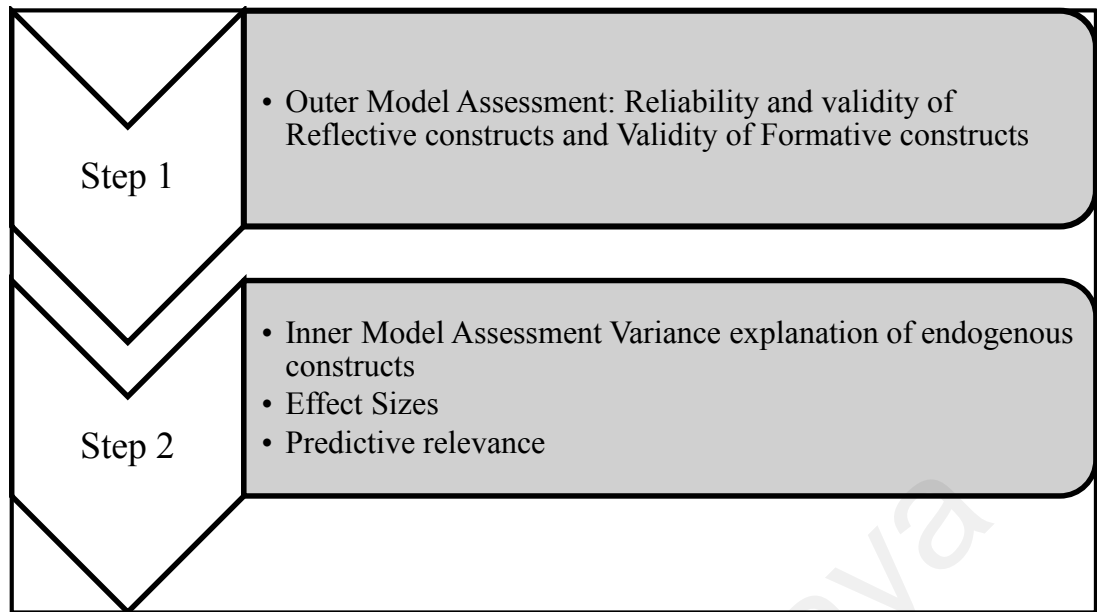


Figure 4-3: Process of PLS path Models

According to Henseler et al. (2009), the reflective measurement models should be evaluated in terms of reliability and validity. The table 4.12 shows the criteria for assessing reflective measurements.

Table 4.12: Assessing Reflective Measurement Models

Standard	Explanation
Indicator Reliability	The outer loading values for each indicator/item should be 0.7 or above.
Composite Reliability	Being a measure of internal consistency the value of composite reliability must not be lower than 0.6
Average Variance Extracted (AVE)	The minimum threshold AVE value should be 0.5.
Fornell-Larcker criterion	The AVE of each latent variable should be higher than the squared correlations with all other latent variables in order to ensure discriminant validity. Thereby each latent variable shares more variance with its own block of indicators than with another latent variable representing a different block of the indicator.
Cross - Loadings	Cross loadings offer another check for discriminant validity. The appropriateness of the model should be reconsidered if an indicator has a higher correlation with another latent variable than with its respective latent variable

Source: Henseler et al. (2009)

For formative measurements, Bagozzi and Heatherton (1994) recommended to assess traditional validity examination as it is a classical test theory which do not apply to the

manifest variables that are used in formative measurement models and that the concepts of reliability (internal consistency) and construct validity i.e. (convergent and discriminant validity) are not meaningful when a formative model is employed. The table 4.13 describes the four standards for assessing the formative measurements.

Table 4.13: Assessing Formative Measurement Models

Standard	Description
External Validity	The formative index should explain a big part of the variance of an alternative reflective measure of the focal construct
Nomological Validity	The relationships between the formative index and other constructs in the path model which are sufficiently well known through prior research should be strong and significant
Multi-collinearity	Manifested variables in a formative block should be tested for multicollinearity. The variance inflation factor (VIF) can be used for such tests. As a rule of thumb, a VIF greater than 10 indicates the presence of harmful collinearity. However any VIF substantially greater than one indicates multi-collinearity.
Significance of Weights	Estimated weights of formative measurement models should be significant

Source: Henseler et al. (2009)

4.11.2 Evaluating Structural Model

In order to evaluate the structural (inner model), it is mandatory to possess reliable and valid outer model specifications. The table 4.14 shows criteria required to assess the structural model. The structural model which is also known as inner model is evaluated by using the following estimates: (1) coefficient of determination (R^2), (2) estimation of path coefficient, (3) in-depth analysis of the structural model can be done by examining the values of the size (f) and, (4) predictive relevance Q^2 and q^2 . Moreover, the non-parametric bootstrap procedure (Efron & Tibshirani, 1993) can be employed in PLS structural path modeling for providing confidence of interval for all factors estimation which provides the basis for the statistical inferences. Generally, the technique of bootstrapping offers estimations in regards to shape, spread and any bias of sampling distribution, in other words, the technique of bootstrap represents the population as it has been taken as an observed sample. The current research has significant methodological

implications as it operationalizes the constructs as higher order reflective formative as discussed in chapter four of methodology. The hypothesized relationships of the study are centralized around second-order hierarchal variable models with the inclusion of formative relationships. The constructs used in this study conceptualized as a second-order supported by the theory, to create a more parsimonious model by reducing the number of relationships in the structural model. For this purpose the approach of repeated indicators resulted in the second-order construct having a variance that was explained by all of its first-order constructs ($R^2 = 1$), a two-stage approach was applied to establish the second-order reflective-formative model. The repeated indicators approach was used to test second-order constructs with PLS (Hair et al., 2016).

Table 4.14: Criteria assessing Structural Models

Criterion	Description
Endogenous latent variables R^2 values	According to Chin (1998, p. 323), for an endogenous latent variable in the inner path model R^2 values of 0.67, 0.33, 0.19 are described as substantial, moderate, weak.
Effect Size f^2	$f^2 = (R^2_{included} - R^2_{excluded}) / (1 - R^2_{included})$: values of 0.02, 0.15 and 0.35 can be viewed as a gauge for a whether a predictor latent variable has a weak, medium or large effect at the structural level.
Path coefficients estimates	The estimated values for path relationships in the structural model should be evaluated in terms of sign, magnitude and significance (the later via bootstrapping)

Source: Henseler et al. (2009)

4.11.3 Blindfolding

According to Hair, Hult, Ringle, and Sarstedt (2016) “*Blindfolding is a sample reuse technique, which systematically deletes data points and provides a prognosis of their original values*”. Researchers may also want to analyze Stone-Geisser’s Q^2 values (Geisser, 1974; Stone, 1974) as a basis of predictive relevance other than assessing the magnitude of R^2 values as a criterion of predictive accuracy. The Q^2 value higher than zero for a specific endogenous latent variable demonstrates that the PLS path Model has predictive relevance for this construct.

4.12 Chapter Summary

This chapter comprehensively explains the methodology and strategies adopted in the research for the purpose of fulfilling the research aims and objectives. It describes the research design inconsistent with the respective research paradigm, data collection procedures, development of questionnaires, and research measurements. Further, the chapter explains the process of questionnaire validation process via the expert panel, pre-testing, and pilot testing. After calculating the adequate sample size based on the sampling frame, unit of analysis and sample size the procedure for collection data was explained. Results from the pilot study show good internal consistencies for all measures and the overall results of the study are reported in Chapter Five. Subsequently, the data analytical techniques were comprehensively explained in this chapter to determine the final outcomes for this research study.

CHAPTER 5: DATA ANALYSIS AND RESULTS

5.1 Introduction

For this research study, quantitative techniques were used for two independent variables, two mediating variables, and one dependent variable. This chapter explains the systematic method of data collection and conversion of raw data collected by means of survey questionnaire for research which is carried out in healthcare industry of Pakistan. The data collection from teams working in hospital sector is much different from another service sector of relevance to the research variables. Previously most of the studies in regards to emotional intelligence and team performance differ as this study examines different mediating variables. Therefore, the current research investigates the connection between leaders EI, team culture, emotional intelligence at the team level, knowledge sharing and team performance in the healthcare sector of Pakistan. The mediating influence of the variables (team EI and KS) has also been explored in this study. This chapter is divided into five main section with further subsections.

The main section of the chapter includes (1) data cleaning and preparation (2) Analysis of Multivariate assumptions (3) evaluation of measurement models (4) analysis of the proposed research model with different research alternate models (5) analysis of a structural model that outlines the findings. Moreover, the chapter describes the process and techniques followed for data coding, data cleaning, handling of missing data, monotone pattern analysis, and demographic analysis of the respondents, non-response bias assessment and examination of outliers. Analysis of multivariate assumptions is carried out by employing tests of normality, a test of multicollinearity, and common method bias in SPSS version (23).

The path analysis has been conducting by utilizing “Partial least square-structural equation modelling approach” (PLS-SEM) for the following tasks: (1) PLS-SEM is used

to examine the reliability and validity of reflective and formative measures, (2) to conduct the confirmatory factor analysis (CFA) leading to the proposed research model analysis. The PLS–SEM proposed and examine alternative models in relevance to the proposed research models. Consequently, the final structural model is used to test the hypotheses. Moreover, this section also presents the comparison between full model, theoretical model, and control model. Finally, the findings and discussion on the analysis were carried out based on the selected research methods as described in chapter 4.

5.2 Pre-Analysis Data Preparation

After the process of complete data collection, the rudimentary data was meticulously checked and cleaned preceding to full data analysis. The pre-analysis data is critical and prerequisite to data analysis as it facilitate researcher to distinguish missing information in duly filled questionnaires, recognize variances in responses and it guarantees the completeness and accuracy of collected data before executing the statistical procedures in software. The process includes coding of data, cleaning the data, handling of missing values, analysis of monotone pattern response, demographic analysis of the respondents, assessment of the non-response bias and examination of outliers. Following subsections describes the comprehensive details of the data preparation process.

5.2.1 Data Coding & Cleaning

To conduct empirical research; the primary step is to code the data to prepare the raw data for further cleaning. The coding of data refers to the process of “*key-in the collected data into any statistical software such as SPSS*”. The survey questionnaire for the study consists of 67 items which form the measurement criteria of the variables proposed for this research. The items of the survey questionnaire had been provided identity by a unique code for representing the data in order to conduct the further analysis. A total of 218 teams comprising of 825 individuals participated in the survey. The response was

entered in the SPSS (version 23) data file to investigate if data is complete in all aspects. The following section describes the missing data analysis and handling.

5.2.2 Missing Data

The missing of data is the recursive issue in an empirical research for the researchers who employed survey questionnaire method. The missing data emerges when respondents return incomplete surveys or miss responses while answering the items of the survey. Missing data can be evaded by thoroughly examining the responses earlier to the submission of the survey by the respondents. Nevertheless, thorough checking of each response might be a tedious task for all the questionnaires. Therefore for this examination, the statistical procedure of running frequencies and descriptive analysis was performed to find missing or inconsistencies in the filled questionnaires.

According to Hair et al (2014), “when a missing data in one record exceeds 15% then the record is considered as inapplicable”. After screening out the data files the researcher found that 25 responses possess more than 15% of the missing values thus those responses were not included in the analysis. As a result, 825 responses were found valid for further examined to treat non-significant missing values. For the current research study, SPSS (version 23) was utilized to further process of data screening by calculating frequencies. The frequency revealed that the number of indicators of the study constructs contains missing values up to 3 cases. There are numerous ways suggests by methodologist to treat missing values such as mean value replacement (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014), case wise deletion an expectation maximization (EM) approach (Lauritzen, 1995). The current study employed the mean value replacement approach to treat the missing values. After treatment of missing values, the researcher also screens the pattern of all responses which is explained in next section.

5.2.3 Monotone response pattern analysis

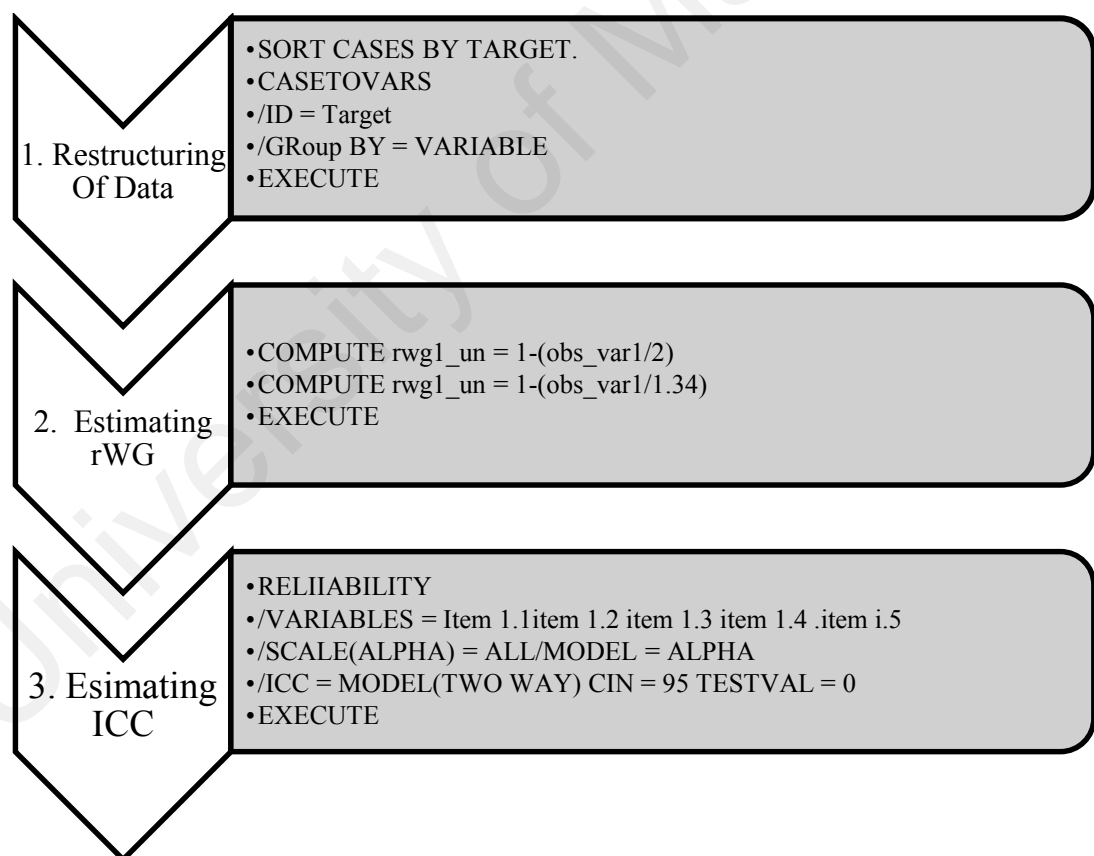
This research performs checks or screened the monotone response pattern for all the received responses. Monotone response patterns occur when a respondent chooses a similar response in offered options for all the items. For example survey questionnaire based on 7 points, Likert scale and respondent chooses 5 for all the items as a response. In such scenarios, the response is considered as biased and must not be used in the analysis (Hair et al., 2014). Hence pattern of the straight lining is a critical issue in survey-based research and this study employs procedures to eliminate such problems. After screening responses it has been revealed that monotone response pattern was found in fourteen filled surveys which were not included for further analysis and hence deleted. Consequently out of total 825 responses fourteen responses were further deleted due to the issue of straight lining pattern resulting 811 usable questionnaires. These 811 responses making 218 teams in total were used for further testing of Inter-rater agreement (IRA) within teams.

5.2.4 Data Aggregation

The participants of the study completed the survey questionnaires according to their perceptions towards leader emotional intelligence (Leader EI), Team culture (TC), Team emotional intelligence (Team EI), knowledge sharing (KS) and team Performance (TP). Considering the research questions and "team as a unit of analysis" for the current study, the data collected from individuals (team leaders and team members) working in different hospitals are required to be aggregated based on the team IDs assigned to each team. The smallest team comprised of 3 members (including leaders) and the maximum numbers of members in each team consist of 7 members.

According to James et al. (1984), "*to evaluate the appropriateness and reliability of aggregating individual-level data to the team level measures*", the primary step is to

compute within-group agreement $rwg_{(j)}$ for the teams. Prior to computing estimates of $(rwg_{(j)})$, IRR, IRA and IRA+IRA the data set is required to restructure which was carried out by using syntax in SPSS Version (23) suggested by LeBreton and Senter (2008). According to LeBreton and Senter (2008), “*IRR refers to the relative consistency in ratings provided by multiple judges of multiple targets*” (p. 816) while “*IRA refers to the absolute consensus in scores furnished by multiple judges for one or more targets*” (p. 816). The current study employed index of agreement of multi-item level $(rwg_{(j)})$, IRR and IRA determining the extent of agreement for each multi-item variables and teams. Figure 5.1 describes the process of computing inter-rater agreement indices: $rwg_{(j)}$, IRR, IRA and IRA+IRA and the respective syntax used in SPSS.



Source: LeBreton and Senter (2008)

Figure 5-1: Process of computing rWG and ICC (1) and ICC (K) in SPSS

For justifying the processes of aggregation in team-level constructs, James et al.'s (1984) inter-rater agreement index ($rWG(j)$) was calculated for all variables and teams respectively through SPSS the process describes in figure 5.1. The $rWG(j)$ for all the variables for significant inter-rater agreement as reported in table 5.1 are above the acceptable threshold value of 0.70 (James et al., 1984).

Table 5.1: Results of ICC(1) and ICC(2)

Constructs	Mean	Std. Deviation	Intraclass correlation		
			ICC(1)	ICC(2)	F- Statistics
Leader EI	5.640	0.604	0.339	0.892	9.362**
Team Culture	4.08	0.324	0.159	0.752	4.149**
Team EI	5.61	0.529	0.265	0.852	7.223**
Knowledge sharing	4.06	0.384	0.267	0.745	3.973**

Note: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

The acceptable threshold values for within team agreement ($rwg(j)$) for the current study is 0.70 as the maximum number of raters in each team is seven ($N=7$) (e.g. Dunlap, Burke, & Smith-Crowe, 2003; George & Bettenhausen, 1990). The results of $rwg(j)$ values revealed for 25 teams (11%) are below the acceptable value 0.70 indicated a low level of within team agreement. therefore out of total 218 teams, 23 teams possessing low $rwg(j)$ values are not included in the analysis. That table exhibiting values of $rwg(j)$ values (within team agreement) for each team is attached to Appendix D.

The second step involves the calculation of intra-class correlation coefficient ICC(1) and ICC(2) in order to assess the data aggregation reliability (Bliese & Halverson, 1998). The values of ICC(1) are found to be statistically significant and absolute values for this study are greater than the acceptable minimum cutoff value of 0.05 (Bliese & Jex, 2002) with values ranges in between 0.159 and 0.339. The values of ICC(2) are greater than the minimum acceptable cutoff value of 0.70 (e.g. Lance, Butts, & Michels, 2006; Nunnally, 1978) with values ranging from 0.745 to 0.892 (James et al., 1984) as reported in table 5.1. Further the results of F-tests for all team level measures were revealed as

significant ($p < 0.01$). The significant F values for leader emotional intelligence, $F(195,540) = 9.362, P < .01$; for team culture $F(195,540) = 4.149, P < .01$, for team emotional intelligence $F(195,540) = 7.223, P < .01$ and Knowledge sharing $F(195,540) = 3.973, P < .01$. The high r_{wg} , high value of ICC(1) and ICC(2), and significant F statistics justified aggregation to the group level for analyzing the relationship amongst variables.

5.3 Demographic Statistics

For the purpose of compiling personal and team characteristics in regards to team size, team tenure and team members' descriptive analysis was carried out. Moreover, descriptive analysis was calculated to check the background information that includes gender, age, academic qualification and employment tenure. In this study, the survey seeks to obtain information in regards to the demographic orientation of the respondents in terms of age, gender, occupation, experience, team tenure, team members, and profession. Table 5.2 describes the individual, team and organization demographics used in this study.

Table 5.2: Demographic variables

Individual	Team	Organization
Gender	No. of members of the team	No. of years employed in the organization (in years)
Age	Team tenure	
Education		
Experience (in years)		
Current Profession		
8 Demographic variables are used in the study		

5.3.1 Age

Respondents were requested to indicate their age in years. Out of total 735 respondents, 31.6% (232.26) of the respondents falls in the age category of 26 to 30 years. Table 5.3 presents the distribution of respondents in different age categories.

Table 5.3: Respondents Age

	Age (in years)	Frequency	Percent	Valid	Cumulative
Valid	less than 20	27	3.7	3.7	3.7
	20-25	211	28.7	28.7	32.7
	26-30	232	31.6	31.6	64.6
	31-35	166	22.6	22.6	87.4
	36 & above	99	13.5	13.8	100.0
Total		735	100.0		

5.3.2 Gender

Respondents were requested to indicate their gender. The gender distribution of all respondents is shown in below table 5.4 that explains 52% (383) of the respondents were females.

Table 5.4: Respondents Gender

Gender Type	Frequencies	Percent	Valid	Cumulative
Male	352	48	48	48
Female	383	52	52	100%
Total	735	100	100	

5.3.3 Education

Respondents were asked to mark their appropriate level of education by giving them different educational categories. After running descriptive analysis 42 % of the respondents are found to be at the postgraduate level of education. The frequency of respondents with different educational level is described in table 5.5.

Table 5.5: Education level

	Education Categories	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than high school	1	.1	.1	.1
	high school	12	1.6	1.7	1.8
	more than high school	99	13.5	13.8	15.7
	college graduate	278	37.8	38.9	54.5
	post graduate	314	42.7	43.9	98.5
	Others	11	1.5	1.5	100.0
	Total	715	97.3	100.0	
Missing	System	20	2.7		
Total		735	100.0		

5.3.4 Profession

Respondents are the individual team members working in different professions in departments of the hospitals. The frequency distribution revealed that 243 respondents belong to the profession of the doctors that constitutes 33.1% followed by the second dominant profession of nurses that makes 28.8% of the total respondents as reported in table 5.6.

Table 5.6: Profession

	Profession Type	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Technician	151	20.5	20.5	20.5
	Nurse	210	28.6	28.6	49.1
	Social Worker	47	6.4	6.4	55.1
	Physician	243	33.1	33.1	88.5
	Others	84	11.4	11.4	100.0
Total		735	100		

5.3.5 Year in Profession

The total number of years in terms of team member experiences was observed which varies from minimum one year to maximum 21 years of the experience. More than half of the respondents that constitutes 64.2 %of the total respondents were in 1-5 years of their respective professions as reported in table 5.7.

Table 5.7: Years in Profession

	No. of years in profession	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	472	64.2	64.2	64.2
	6-10	202	27.5	27.5	91.7
	11-15	48	6.5	6.5	98.2
	16-20	12	1.6	1.6	99.9
	Above 20	1	0.1	0.1	100.0
Total		735		100	

5.3.6 Team Tenure

Team tenure is one of the control variables for this research study. Teams and team members who worked less than 6 months in one team are not allowed to participate in the

study. Table 5.8 depicts the frequencies of the team tenure of the individual team members in particular teams.

Table 5.8: Team Tenure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0.5 - 1 year	26	3.5	3.5	3.5
	1-2 years	204	27.8	27.8	31.4
	2-3 years	372	50.6	50.8	82.1
	3-4 years	111	15.1	15.1	97.3
	4-5 years	17	2.4	2.4	100
	5 years and above	4	.5	.5	
Total		735	100.0		

5.3.7 Members of Team

The team size is one of the control variables of this study. Table 5.9 describes the frequencies of teams according to the total number of members in each team including team leader. 42.56 % (83 teams) of the teams consist of 3 members.

Table 5.9: Team distribution

	Members in Team	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3 members	83	42.56	42.56	42.56
	4 members	80	41.03	41.03	83.59
	5 members	27	13.85	13.85	97.44
	6 members	4	2.04	2.04	99.48
	7 members	1	0.52	0.52	100
Total		195	100.0		

5.3.8 Years Employed In Organization.

Respondents were asked to mention their employment in respective organizations. Table 5.10 describes that 364 out of the total respondents are working in their respective hospitals falls in the range of three to six years.

Table 5.10: Yrs. Employed Organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 1 year	35	4.8	4.8	4.8
	1-3 years	334	45.4	45.4	50.3
	3-6 years	346	47.1	47.1	97.5
	6-9 years	20	2.7	2.7	100.0
Total		735	100.0		

5.4 Analysis of Non-Response Bias

One of the major challenges of survey questionnaire based empirical research is the challenge of “Non-Response Bias” while collecting data. It is a centrally important issue in social sciences research and occurs when the real respondents of the research study are different from the sampled responses which may comprise of the respondents who refused to participate in the study (Malhotra & Indrayan, 2010). In general research, scholar does not focus on this issue when the response rate is sufficiently high. On the other hand, statistical experts (Atif, Richards & Bilgin, 2012) recommended the assessment of non-response bias despite the high and low response rate. There are numerous methods to control the non-response bias such as comparing respondents to population, double-dashed dipping nonrespondents.

For this research study, nonresponse bias analysis was done by comparing the responses of early and late respondents in form of teams. The teams are defined as late and early respondent teams considering the first 100 and last 95 teams (Karahanna & Straub, 1999). The table presents 5.11 the results of the non- response bias. The issue of non- response bias arises in questionnaires if the appropriate responses of respondents contrast in significant courses from the individuals who did not reply. The genuine issue of non-response bias is resulting from responses to questions, and data given by respondents being unique in relation to the individuals who denied from the individuals who declined to react (Armstrong & Overton, 1977).

Respondents in forms of teams have been segregated into two segments (1) early respondents in form of teams and (2) late respondents to check bias of non-response. An independent Sample t-test was performed for all the constructs. Mann-Whitney U-test was performed to assess equality of variance whether the difference amongst early and late respondents fluctuate.

Table 5.11: Descriptive Statistics for early and late response

Variables	Response	N	Mean	Std. Deviation	Std. Error Mean
Leader's EI	Early	100	5.8590	.64437	.03672
	Late	95	6.0071	.80104	.08010
Team culture	Early	100	4.0469	.43345	.02470
	Late	95	4.1420	.40984	.04098
Team EI	Early	100	5.6867	.72721	.04144
	Late	95	5.8288	.68883	.06888
Knowledge Sharing	Early	100	4.0281	.40705	.02319
	Late	95	4.0587	.40726	.04073
Team Performance	Early	100	5.5376	.55393	.03156
	Late	95	5.5643	.70290	.07029

Table 5.11 depict that group mean and standard deviation for early response and late response, not much difference. While Table 5.12 presents the values of Mann-Whitney U test reveals that those who responded early as compared to those respond late are not much different. As the minimum acceptable value of significance in the test is 0.05 that detect the non-response bias. The results of Mann-Whitney U test demonstrated that there is no significant difference between the early and late respondents as all values are greater than 0.05 as reported in table 5.12.

Table 5.12: Independent Samples Test for Comparing Early and Late response Variances

Variables	Response Time	N	Mean Rank	Sum of ranks	Mann-Whitney U	Sig. (2-tailed)
Leader EI	Early	100	102.05	10205.50	4345.500	0.722
	Late	95	93.48	8880.50		
Team Culture	Early	100	100.00	9999.50	4550.500	0.612
	Late	95	95.90	9110.50		
Team EI	Early	100	99.01	9136.15	4190.000	0.503
	Late	95	96.17	9136.50		
Knowledge sharing	Early	100	101.06	10106.00	4647.500	0.573
	Late	95	94.35	8693.25		
Team Performance	Early	100	103.03	10303.00	5828.000	0.132
	Late	95	93.98	8928.10		

5.5 Evaluation of Multivariate assumptions

5.5.1 Test of Normality

The assumption of normally distributed data is the foremost assumption in multivariate analytical techniques. The normal distribution of data refers to a symmetrical and bell-shaped data distribution. The highest score frequency is shown in the middle, while lower score frequency is depicted at the left and right extremes. Normality can be determined by assessing the skewness and kurtosis level for all latent variables (Hair, Black, Babin, Anderson, & Tatham, 2006). The “skewness refers to the balanced distribution, in a case where the distribution of data is not balanced, then it would be positively or negatively skewed” while “Kurtosis refers to the peakedness or flatness of the data distribution”. For this study, SPSS (version 23) was utilized to determine the values of skewness and kurtosis for the latent variables. According to Hair et al (2010), the ideal point for symmetrical distribution is zero. The data is reflected to be normal if the empirical Z-values falls in the range of ± 2.58 at 0.01 level of significance or ± 1.96 at 0.05 level of significance. The lack of normality in data distribution may influence the results of the multivariate analysis. However, the lack of normality is not severe with PLS-SEM. The

table 5.13 represents the values of the skewness and kurtosis for assessing the normality of data distribution. The obtained values for skewness and kurtosis are above the range which reveals the negatively skewed and more peakedness than a normal distribution. Table 5.13 describes the descriptive statistics including values of Skewness and kurtosis. The values of skewness and kurtosis for all latent variables fall in the desired range of ± 1.96 and ± 2.58 respectively, however, few data values are negatively skewed and more peakedness than normally distributed data. According to Hair, Ringle, and Sarstedt (2013), this pattern is less severe in PLS-SEM.

Table 5.13: Normality Analysis

Constructs	N	Statistics					
		Min.	Max	Mean	Std. Dev.	Skewnes s	Kurtosi s
Leader Emotional Intelligence							
Self-Emotional Appraisal	195	2.75	6.88	5.772	0.660	-1.425	2.092
Other emotion appraisal	195	3.00	7.00	5.686	0.645	-1.411	2.934
Use of emotions	195	4.25	6.88	5.544	0.452	-0.301	0.112
Regulation of emotion	195	2.13	6.88	5.605	0.686	-1.814	5.216
Team Culture							
Vision	195	3.00	4.94	4.217	0.278	-0.470	1.700
Participative safety	195	2.88	4.63	4.115	0.311	-1.101	1.339
Task orientation	195	3.13	4.84	3.958	0.309	-0.145	-0.110
Support innovativeness	195	3.00	4.69	4.022	0.339	-0.571	0.102
Team Emotional Intelligence							
Awareness of emotions	195	3.00	7.00	5.902	0.623	-1.037	1.890
Management of emotions	195	3.84	6.34	5.482	0.472	-0.795	0.690
Awareness of emptions	195	3.25	6.67	5.478	0.572	-0.711	0.783
Management of other emotions	195	4.25	6.63	5.576	0.454	-0.571	-0.191
Knowledge Sharing	195	3.38	4.94	4.054	0.285	-0.047	-0.221
Team Performance							
Meeting patient needs	195	3.50	7.00	5.641	0.759	-0.898	0.808
Turnover	195	3.00	7.00	5.630	0.659	-0.922	1.108
Absolute technical quality	195	2.60	7.00	6.029	0.752	-1.353	2.578

5.5.2 Common Method Bias (CMV)

The issue of common method variance is attributable to the method of measurements which may be problematic in behavioral sciences. Common Method Bias (CMV) is “variance that is attributable to the measurement method rather than to the constructs

the measurement presents” (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003, p. 879).

Like other forms of measurement errors, the systematic error of common method variance may have a serious confounding impact on the outcomes of hypothesized relationships. Earlier studies (e.g. Campbell & Fiske, 1959; Nunnally, 1978) have consensus that if CMV is found to be significantly high then there is a possibility of inappropriate inferences drawn from the empirically tested relationships amongst the study constructs. Numerous procedures and techniques are advocated by statisticians to decrease the problems of common method bias. These techniques are categorized as procedural and statistical techniques. The procedural techniques are the preventive strategies that a researcher can employ before collecting the data while the statistical procedures aim at identifying and controlling the impact of common method biases while conducting the data analysis (Chin, Thatcher, & Wright, 2012). This study used preventive procedures for eliminating the issue of common method bias by using two separate instruments for different variables.

5.5.2.1 Procedural method of preventive CMV

Podsakoff, MacKenzie, and Podsakoff (2012) advocated different techniques for minimizing and monitoring the problem of common method bias which includes following (1) collecting data for predictor and criterion constructs from different sources, (2) temporal, proximal, psychological and procedural partition of the scales, (3) symmetrical balancing of the questionnaire order, (4) ensuring anonymity of the respondents, (5) by improving the wordings of scale items and (6) by adding reverse coded statements. These preventive measures should be taken care while designing the research instrument. The current research followed the guidelines for obtaining indicators of the predictor and criterion variables from different sources by collecting data from two sources. The questionnaire of leader EI, team culture, and knowledge sharing and team emotional intelligence was distributed among team members whilst questionnaire for

knowledge sharing and team performance was distributed among leaders. This eliminated the problem of common method variance (Mouton, 1996). Further this study employed temporal and separation guidelines by (i) using different response format/scales, a combination of five and seven-point Likert scales (ii) biases were also minimized through the careful construction of items themselves (iii) by protecting the respondents anonymity (iv) by using reverse coded items (v) by reducing item ambiguity (vi) explaining ambiguous/ unfamiliar terms (vii) keeping questions simple and easy (viii) avoiding vague and double-barreled statements. The described recommendations were incorporated during the phase of questionnaire design and development aiming to reduce biases.

5.6 Descriptive statistics for the Research variables

5.6.1 Mean & Standard Deviation of Variables

The descriptive include mean and standard deviation of the scores obtained from the scaled variables of the study as exhibited in the table 5.14. The descriptive statistics show that the mean score for leader emotional intelligence is 5.64 with a standard deviation of .601. The mean score for team culture variable is 4.08 (SD = .324) Moreover, the mean score for team emotional intelligence variable is 5.61 (SD = .529), for knowledge sharing variable is 4.06 (SD = .384) and for team performance variable is 6.02 (SD = .369) respectively.

Table 5.14: Mean & Standard Deviation

Variables	Minimum	Maximum	Mean	Std. Deviation
Leader Emotional Intelligence	3	7	5.64	.604
Team Culture	3	5	4.08	.324
Team Emotional Intelligence	3	7	5.61	.529
Knowledge Sharing	2	5	4.06	.384
Team Performance	4	7	6.02	.369

5.6.2 Response Rate

The response rate for the study explains the total targeted team and the valid response received from each healthcare institutions in form of teams. Table 5.15 indicated that total 218 teams received survey questionnaires who were working in biggest private hospitals in Lahore Pakistan. Out of 218 teams, 195 teams were found fit for the analysis yielding a valid response rate of 88.8% which is quite high as only those teams were invited to participate who fits the criteria.

Table 5.15: Team responses

Sr. No.	Hospital	Targeted teams	Valid	Not Valid
1	National Hospital Defense	28	25	3
2	Hameed Latif hospital	30	25	5
3	Doctors Hospital	22	20	2
4	Omar Hospital	22	20	2
5	Shaukat Khanum Hospital	30	30	0
6	Masood Hospital	29	24	6
7	Surgimed Hospital	18	15	3
8	Farooq Hospital	25	24	1
9	Ammar Medical Complex	14	12	3
Total		218	195	25

5.6.3 Cronbach's alpha for reliability

To determine the internal consistency for each adopted scale, the coefficient of reliability Cronach's alpha was calculated. The outcomes revealed that the scales used to measure the constructs of the study possess an adequate level of reliabilities as the value of alphas is near or higher than 0.7 (Vogt, 1999). The values of Cronbach's alphas with a number of respondents and items in each scale is described in table 5.16. In this study the alphas values for leader emotional intelligence, $\alpha = .89$; team culture, $\alpha = .0.76$; team

emotional intelligence, $\alpha = .86$; knowledge sharing, $\alpha = .75$; team performance, $\alpha = .71$ respectively.

Table 5.16: Reliability Results

Variables	Cronbach Alpha	No. of Items	N
Leader's Emotional Intelligence	.894	16	540
Team Culture	.767	16	540
Team Emotional Intelligence	.863	16	540
Knowledge Sharing	.751	8	540
Team Performance	.711	16	195

5.7 Structural Equation Modeling PLS-SEM Analysis

The current research study employs the technique of partial least square (PLS) for data analysis by utilizing the software Smart-PLS (version 3 M3) for evaluating the measurement (outer) model and the structural (inner) model. Chin et al. (2003) stated that “the use of PLS technique is beneficial as it allows the latent construct to be modeled either as reflective or formative constructs”. The models derived from PLS-SEM can be categorized into four categories depending on the types of relationship in between (1) first-order latent variables and their manifest variables and (2) the second order latent variables and the first order latent type variable According to the Jarvis et al. (2003), these four types of model are as follows:

- I. Type I: Reflective- reflective
- II. Type II: Reflective-formative
- III. Type III: Formative - reflective
- IV. Type IV: Formative – Formative

In this study, another purpose of using PLS technique is that the proposed research model consists of “reflective-formative” constructs which are typically two model (type – II). Further, this study employed methodical procedures in the evaluation of measurement and the structural model by utilizing the Smart-PLS.

In step one of the measurement model various reliability and validity measures with respective indicators are examined (Chin, 2010). For the purpose of examining the limitations of the measures, it is essential to infer all relevant possible connections between the constructs and their respective items. Further, it is a great premise to identify whether the construct is either reflective or formative because there are separate analytical procedures to measure each type of construct. The reliability and validity of the reflective constructs are evaluated by performing the confirmatory factor analysis (CFA) while formative constructs are not limited to the restriction of reliability hence they are liable to fulfill the condition of validity (Henseler et al., 2009).

In accordance with the earlier studies, the multi-dimensional and multi-item first-order constructs of this study are theorized as reflective. However, leader emotional intelligence is hypothesized as second-order formative constructs comprised of four dimensions: self-emotion appraisal, other emotions appraisal, and regulation of emotion and using of emotions. The second construct team culture (TC) is also conceptualized as second-order formative constructs comprised of four dimensions: vision, support for innovativeness, task orientation and participative safety. The third construct; team emotional intelligence is conceptualized as second-order formative constructs comprised of four dimensions: “awareness of emotions”, “management of own emotions”, “awareness of others emotions” and “management of others emotions”. The fourth construct of the study which is knowledge sharing is also conceptualized as first-order reflective constructs comprised of eight items measuring the tacit and explicit knowledge. The dependent variable which is team performance is also conceptualized as second-order formative constructs comprised of three dimensions: absolute technical quality, meeting patient member needs, and turnover.

The second step articulates the procedures for assessing the validity of second-order formative constructs. The research model will be examined by utilizing the four multi-dimensional and one uni-dimensional construct for ultimate comparisons of the results. Consequently, the research model formed the confirmed basis for the execution of this step.

In the third step, the final research model will be framed for the further model assessment. The evaluation performed in this step may include the following depending on the research objectives: (1) assessment of path coefficients, (2) coefficient of determination (R^2), (3) mediation analysis, (4) effect size (f^2) and (5) examining the goodness of fit of the model (GoF). The following section presents the assessments of the measurement model.

5.8 Assessment of Outer (measurement) Model

In PLS-SEM the outer model analysis is a first stem which is also known as a measurement model. The outer model analysis refers to the reliability and validity of the final constructs. For assessing the measurement model, Confirmatory factor analysis (CFA) was conducted for all study constructs in order to explain how measured indicators logically represents the construct in the model (Hair et al., 2006). Measurement models can be classified into two types in PLS-SEM: (1) assessment of reflective model and (2) assessment of formative model. The reflective measurement model assessment is performed on the basis of internal consistency (reliability), convergent and discriminant validity while the assessment of the formative model is based on the evaluation of the collinearity testing, the significance of outer weights and nomological validity (Hair, Sarstedt, Pieper, & Ringle, 2012). The subsequent section explains the evaluation of the outer (measurement) model.

5.8.1 Reliability of Reflective Measures

The outer model is evaluated to gauge the reliability and validity of the constructs used in the study. All first order constructs are reflected therefore the measurements model is based on the reflective model. The evaluation of outer model is performed by employing the technique of PLS-SEM. The relationship between latent variables and respective indicators for reflective first-order models are examined. Figure 5.2 framed as one model exhibits all the measurement models comprised of first-order and second-order constructs with respective items.

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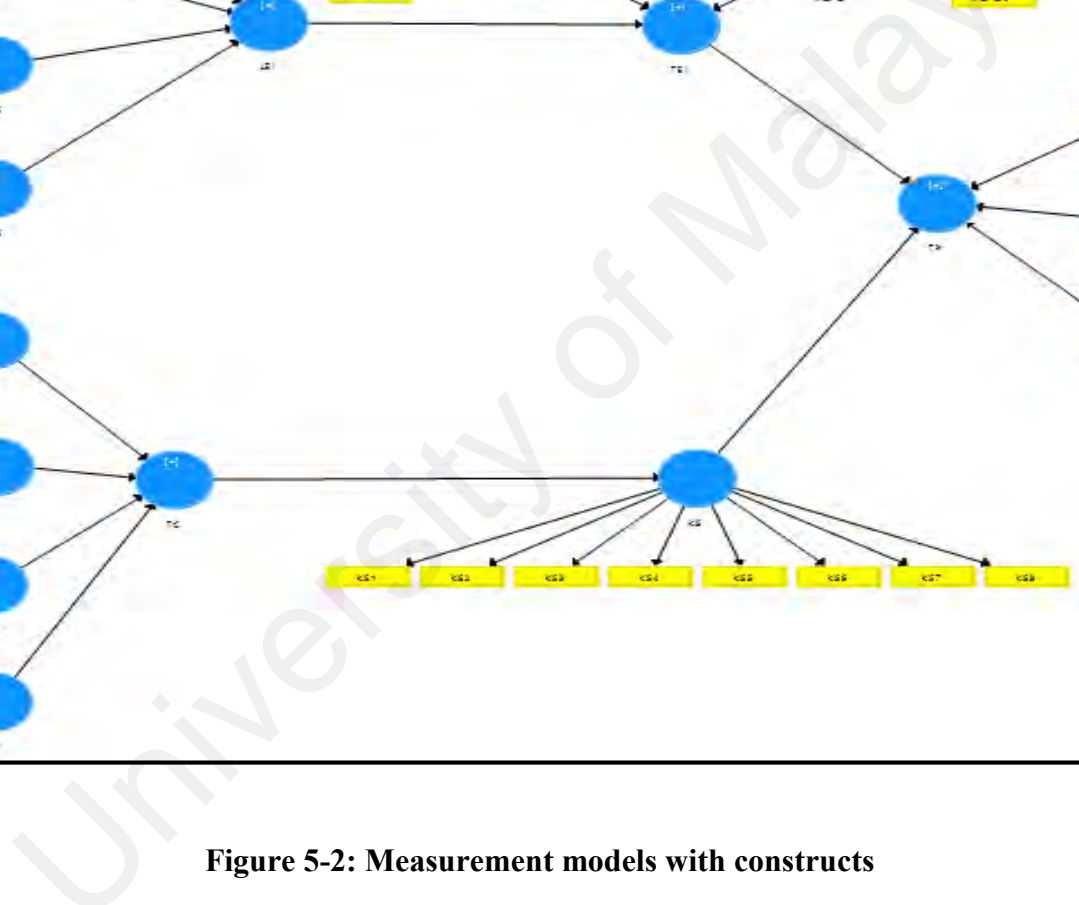


Figure 5-2: Measurement models with constructs

In evaluating the measurement mode for the purpose to retain any particular items, the item must possess significant loading which must be higher than 0.708 (Hair et al., 2012). The items possessing factor loadings below 0.7 are ought to be deleted in a case if by deleting that particular item enhances the values of average variance extracted (AVE) and composite reliability (CR) (Hair et al., 2012). Figure 5.3 depicts the measurement model for this research study with their respective outer loadings of the constructs.

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As shown in figure 5.3 the loadings of all the indicators are not above the acceptable threshold value which is 0.708 which may further influence the convergent validity that includes the average variance extracted (AVE) values of the first-order latent constructs. The rule of thumb for assessing convergent validity suggests that AVE value must be greater than 0.50 (Hair et al., 2011). Therefore the items having outer loading below 0.708 were eliminated provided if deletion of items leads to the increased value of AVE as shown in figure 5.4 the items deleted with lower values. So the reliability analysis of the final measurement model is presented in table 5.17.

Table 5.17: Outer loadings and AVE for constructs

Variable	Items	Loadings	Composite Reliability	Average Variance Extracted (AVE)	T- Statistics	P value
Leader Emotional Intelligence						
Self-emotion Appraisal (SEA)	SEA1	0.864	0.925	0.756	96.189	0.000
	SEA2	0.926				
	SEA3	0.894				
	SEA4	0.788				
Others emotion appraisal (OEA)	OEA1	0.834	0.838	0.754	81.991	0.000
	OEA2	0.874				
	OEA3	0.898				
	OEA4	0.866				
Regulation of emotion (ROE)	ROE1	0.857	0.931	0.770	69.793	0.000
	ROE2	0.896				
	ROE3	0.872				
	ROE4	0.885				
Usage of emotions (UOE)	UOE1	0.731	0.843	0.574	46.282	0.000
	UOE2	0.788				
	UOE3	0.825				
	UOE4	0.678				
Team Culture						
Vision (VIS)	VIS1	0.756	0.801	0.574	32.039	0.000
	VIS3	0.795				
	VIS4	0.721				
Participative Safety(PS)	PS1	0.738	0.818	0.530	37.911	0.000
	PS2	0.740				
	PS3	0.708				
	PS4	0.726				
Support for innovativeness (SIN)	SIN1	0.773	0.772	0.530	31.759	0.000
	SIN2	0.696				
	SIN4	0.713				
Task orientation (TOR)	TOR2	0.721	0.779	0.541	41.494	0.000
	TOR3	0.772				
	TOR 4	0.760				

Table 5.17,continued,

Variable	Items	Loadings	Composite Reliability	Average Variance Extracted (AVE)	T- Statistics	P value
Team Emotional Intelligence						
Awareness of own emotions (AWR)	AWR1	0.894	0.928	0.763	94.861	0.000
	AWR2	0.915				
	AWR3	0.862				
	AWR4	0.820				
Management of Emotion (MGT)	MGT1	0.770	0.802	0.575	33.787	0.000
	MGT2	0.805				
	MGT3	0.697				
Awareness of others emotions (AWRO)	AWRO2	0.890	0.914	0.779	80.357	0.000
	AWRO3	0.915				
	AWRO4	0.841				
Management of other Emotion (MGTO)	MGTO1	0.749	0.838	0.564	46.523	0.000
	MGTO2	0.793				
	MGTO3	0.738				
	MGTO4	0.722				
Knowledge Sharing (KS)	KS1	0.764	0.839	0.511	51.184	0.000
	KS2	0.707				
	KS3	0.713				
	KS4	0.684				
	KS5	0.702				
Team Performance						
Absolute Technical Quality (ABTQ)	ABTQ1	0.850	0.909	0.714	62.014	0.000
	ABTQ2	0.882				
	ABTQ3	0.832				
	ABTQ4	0.816				
Meeting patient need (MFN)	MFN1	0.828	0.813	0.685	33.210	0.000
	MFN2	0.827				
Turnover (TO)	TO1	0.737	0.791	0.559	33.170	0.000
	TO2	0.785				
	TO3	0.719				

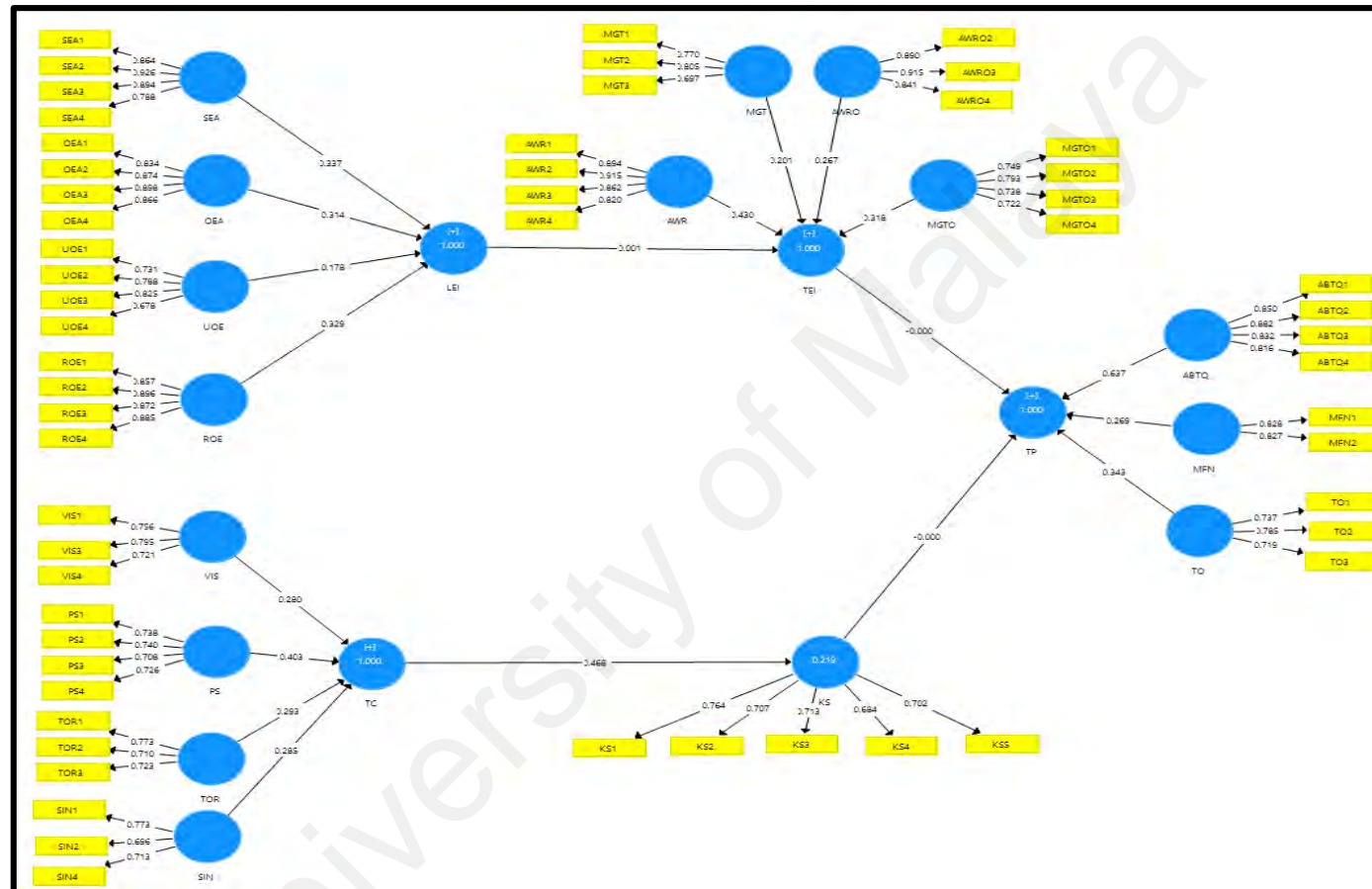


Figure 5-4: Final Measurement Model with Factor Loadings

In order to increase the values of AVE for latent variables, the step-wise deletion of items for each construct was performed by considering the benchmark loadings 0.708 for each item. Further details of items deletion are discussed under the section of convergent validity. The assessment of reliability for the first-order reflective constructs was carried out. The reliability refers to the degree of assessing consistency for adopted measures. The reliability ensures the extent to which any particular construct or indicator or the group of constructs or indicators are consistent in measuring for which purpose they are designed to measure. For assessing the adequate level of reliability and ensuring the consistency of the adopted measures in this study the values of Cronbach's alpha and composite reliability were calculated in PLS-SEM. According to Hair et al. (2014), for satisfying the condition of reliability the value of CA and CR must exceed 0.7. It is suggested that *“as compared to the value of Cronbach's alpha the value of Composite Reliability is a more rigorous assessment of the reliability”* (Chin, 2010). The reliability of the reflective constructs is reported in table 5.17. Consequently, all reflective measures are within the desired range of acceptability.

Table 5.18: Reflective Construct Reliability

Constructs	Cronbach's Alpha	Composite Reliability	Nature of Constructs
Leader Emotional intelligence (LEI)			Second-order Formative
SEA	0.891	0.925	First-order Reflective
OEA	0.891	0.925	First-order Reflective
ROE	0.900	0.931	First-order Reflective
UOE	0.750	0.853	First-order Reflective
Team Culture (TC)			Second-order Formative
VIS	0.712	0.801	First-order Reflective
PS	0.705	0.818	First-order Reflective
SIN	0.607	0.772	First-order Reflective
TOR	0.776	0.979	First-order Reflective

Table 5.18, continued

Constructs	Cronbach's Alpha	Composite Reliability	Nature of Constructs
Team Emotional Intelligence (Team EI)			Second-order Formative
AWR	0.896	0.928	First-order Reflective
AWRO	0.857	0.914	First-order Reflective
MGT	0.640	0.802	First-order Reflective
MGTO	0.743	0.838	First-order Reflective
Knowledge Sharing (KS)	0.761	0.839	Reflective
Team Performance (TP)			Second-order Formative
ABTQ	0.866	0.909	First-order Reflective
MFN	0.758	0.813	First-order Reflective
TO	0.705	0.801	First-order Reflective

5.8.2 Reflective measure validity

The validity refers “*to the extent to which a measure accurately measures what is expected to measure and how well the concept is defined by the measure*” (Hair, 2010). The validity can be classified into two further types of reflective measures (1) convergent validity and (2) discriminant validity. This study applied both types in order to gauge the validity of the reflective measure.

5.8.2.1 Convergent validity

The criteria of convergent validity advocate the extent to how much measures of the similar construct are related to each other (Hair et al., 2014). Convergent validity can be evaluated by the estimations of AVE which alludes to the extent that any specific construct identifies any sort of potential variance of its indicators. As a thumb rule, the convergent validity assesses the AVE value which must exceed 0.50 (Hair et al., 2014). Further, the convergent validity can also be determined by making comparisons with the values of CR, as the values of composite reliability must be higher than the values of AVE (Hair et al., 2006). The researcher employed CFA in PLS-SEM in order to evaluate the inter-factor and cross-factor loadings. The table 5.10 depicts the factor loadings for

each indicator in the measurement model and the AVE values for all the reflective constructs of the study. The estimation of AVE for each construct after deleting the items with low loadings are reported in table 5.19. Figure 5.4 represents the final measurement model after the step-wise process of item deletion to achieve an adequate level of AVE which is minimum 0.50.

Table 5.19: Deleted items with Improved AVE values

Second-order construct	First-order construct	No. of items	AVE (Before)	Item Deleted	Loadings	AVE (After)
Team Culture	Vision	4	0.480	VIS-2	0.636	0.574
	Support innovativeness	4	0.412	SINR-3	0.372	0.530
	Task orientation	4	0.471	TOR-1	0.623	0.541
Team emotional intelligence	Managing emotions	4	0.505	MGT-4	0.558	0.575
	Awareness of other emotions	4	0.650	AWRO-1	0.509	0.779
Team Performance	Effectiveness	5	0.612	ABTQ-5	0.171	0.714
Knowledge sharing	Turnover	4	0.538	TO-4	0.419	0.599
		8	0.437	KS-6	0.610	0.449
			0.449	KS-7	0.615	0.453
			0.453	KS-8	0.659	0.511
			0.500	KS-5	0.654	0.539

The table 5.19 depicts the information of the latent constructs, a prior number of items in each scale and the number of the items deleted step-wise to enhance the values of average variance extracted (AVE) of the respective constructs in order to achieve the acceptable threshold value of 0.50 as shown in figure 5.3. Consequently, the convergent validity is satisfied for all the constructs by increasing the AVE values.

5.8.2.2 Discriminant Validity

The assessment of discriminant validity is important to ensure that any specific construct which is being measured is different from remaining constructs of the study. *“It refers to the degree to which a construct is distinct from other constructs”* (Hair, 2010). In PLS-SEM, the discriminant validity can be assessed by two different approaches which are: (1) factor loadings of each item must be greater than the items of cross loading of

other constructs and (2) the extent of correlation amongst the latent variables and the AVEs of the other latent variables. Table 5.20 and 5.21 presents the discriminant validity matrix of all the constructs.

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Table 5.20: Discriminant Validity Matrix of the Latent Constructs

Constructs	ABTQ	AWR	AWRO	KS	MFN	MGT	MGTO	OEA	PS	ROE	SEA	SIN	TO	TOR	UOE	VIS
ABTQ	0.845															
AWR	0.214	0.873														
AWRO	0.290	0.463	0.883													
KS	0.300	0.391	0.285	0.715												
MFN	0.407	0.108	0.119	0.131	0.827											
MGT	0.215	0.525	0.468	0.328	0.107	0.758										
MGTO	0.279	0.718	0.491	0.407	0.160	0.582	0.751									
OEA	0.189	0.642	0.307	0.353	0.120	0.374	0.570	0.868								
PS	0.220	0.556	0.376	0.369	0.139	0.449	0.456	0.574	0.728							
ROE	0.254	0.683	0.410	0.355	0.110	0.351	0.608	0.789	0.580	0.878						
SEA	0.229	0.784	0.510	0.333	0.101	0.432	0.705	0.733	0.516	0.774	0.869					
SIN	0.062	0.441	0.344	0.354	0.035	0.376	0.366	0.431	0.599	0.529	0.396	0.728				
TO	0.417	0.141	0.172	0.180	0.444	0.170	0.149	0.132	0.101	0.105	0.085	0.037	0.747			
TOR	0.149	0.317	0.322	0.384	0.084	0.399	0.340	0.303	0.550	0.387	0.279	0.507	0.115	0.736		
UOE	0.180	0.447	0.429	0.285	0.015	0.246	0.426	0.410	0.344	0.408	0.541	0.289	0.105	0.328	0.757	
VIS	0.337	0.516	0.371	0.376	0.159	0.410	0.480	0.390	0.474	0.442	0.447	0.377	0.147	0.442	0.403	0.758

Note: The diagonal bold values are the square root Of AVE values shared between the latent variables and all other variables.

Legend: ABTQ: absolute technical quality, AWR: Awareness of emotions, AWRO: awareness of other emotions, KS: knowledge sharing, MFN: Meeting patient needs, MGT: management of emotions, MGTO; management of other emotions, OEA: other emotion appraisal, PS: participative safety, ROE: regulation of emotion, SEA, self-emotion appraisal, SIN: support for innovativeness, TO: Turnover, TOR: task orientation, UOE: use of emotions, VIS: vision

Table 5.21: Discriminant Validity Matrix of the constructs

Constructs	KS	LEI	TC	TEI	TP
Knowledge sharing	0.715				
Leader emotional intelligence	0.391	0.724			
Team Culture	0.468	0.633	0.583		
Team Emotional Intelligence	0.440	0.765	0.643	0.668	
Team Performance	-0.289	-0.233	-0.236	-0.297	0.648

To fulfill the criteria of first approach CFA analysis was conducted and results indicated that the scale items of the constructs are more strongly loaded in their respective constructs than other constructs. The values of cross loading as a result of CFA (See Appendix E). For the second methods of assessing discriminant validity the square root of AVEs is compared with correlational values between the variables. The outcomes demonstrated that the square root of the AVE for every individual construct is higher than correlations with all other constructs. This indicated that the condition of discriminant validity for all the study constructs is satisfied.

5.8.2.3 Analysis of Heterotrait-Monotrait Ratio (HTMT)

Recently statistical experts criticized the Fornell and Larcker (1981) criteria for determining discriminant validity as sometimes it may not be able to detect issues of discriminant reliability viably (Henseler, Ringle, & Sarstedt, 2015). Therefore an alternate approach was recommended based on HTMT to assess the discriminant validity. According to Hair et al. (2014), the primary purpose to evaluate discriminant validity is to ensure that any specific reflective construct has the strongest relationship with its respective indicators. The simulation study by Henseler et al. (2015) revealed that traditional criteria for assessing discriminant validity are not realizable in all types of organizational research. Therefore this study employed HTMT approach additionally to satisfy the condition of discriminant validity. Considering the fact that the discriminant validity assessment has the goal to ensure that a reflective construct has the strongest relationships with its own indicators (Hair et al., 2014); the values of HTMT should be less than 0.85 (Kline, 2011) or 0.90 (Gold & Arvind Malhotra, 2001) as reported in table 5.22.

Table 5.22: Correlations of Heterotrait-Monotrait Ratio (HTMT)

	ABTQ	AWR	AWRO	KS	MFN	MGT	MGTO	OEA	PS	ROE	SEA	SIN	TO	TOR	UOE	VIS
ABTQ																
AWR	0.242															
AWRO	0.336	0.527														
KS	0.367	0.470	0.342													
MFN	0.596	0.162	0.173	0.234												
MGT	0.303	0.645	0.637	0.438	0.208											
MGTO	0.343	0.874	0.608	0.532	0.247	0.808										
OEA	0.215	0.719	0.350	0.428	0.177	0.437	0.698									
PS	0.279	0.701	0.476	0.503	0.225	0.637	0.624	0.727								
ROE	0.287	0.761	0.464	0.424	0.156	0.434	0.736	0.880	0.729							
SEA	0.259	0.877	0.585	0.404	0.146	0.525	0.861	0.824	0.655	0.863						
SIN	0.181	0.625	0.492	0.533	0.119	0.599	0.565	0.604	0.843	0.741	0.559					
TO	0.573	0.188	0.240	0.281	0.777	0.284	0.229	0.178	0.158	0.156	0.179	0.095				
TOR	0.209	0.434	0.455	0.570	0.173	0.662	0.514	0.413	0.849	0.522	0.382	0.891	0.240			
UOE	0.225	0.544	0.540	0.371	0.066	0.348	0.577	0.496	0.468	0.489	0.663	0.441	0.172	0.492		
VIS	0.458	0.687	0.501	0.540	0.274	0.624	0.697	0.522	0.704	0.585	0.596	0.638	0.235	0.730	0.589	

ABTQ: absolute technical quality, AWR: Awareness of emotions, AWRO: awareness of other emotions, KS: knowledge sharing, MFN: Meeting patient needs, MGT: management of emotions, MGTO: management of other emotions, OEA: other emotion appraisal, PS: participative safety, ROE: regulation of emotion, SEA, self-emotion appraisal, SIN: support for innovativeness, TO: Turnover, TOR: task orientation, UOE: use of emotions, VIS: vision.

5.8.3 Formative measures validity

The distinguishing features of reflective and formative constructs have developed separate treatments to fulfill the conditions of validity for each type of construct (Petter, Straub, & Rai, 2007). According to Hair et al. (2014), formative measures can be validated through there different stages. This study addresses the formative measure validity by employing multi-collinearity conditions.

5.8.3.1 Formative Measures Multi-Collinearity

The issue of multicollinearity in formative construct may influence the outer weights and respective statistical significance of the indicators. The extent of collinearity can be examined by the variance inflation factor (VIF) and the value of tolerance. To investigate the issue of multicollinearity the tolerance value should not be lower than 0.10 and the value of VIF should not be greater than 10, otherwise, values not in the specified rage may raise the issue of collinearity. Tale 5.23 shows the multi-collinearity checks for formative second-order constructs: Leader emotional intelligence (Leader EI), team culture (TC), team emotional intelligence (Team EI) and team performance (TP).

Table 5.23: Multi-collinearity statistics - Formative second-order constructs

Formative Constructs	Dimensions	Collinearity statistics	
		Tolerance	VIF
Leader Emotional Intelligence (LEI)	SEA	0.211	3.191
	OEA	0.303	2.943
	ROE	0.244	3.393
	UOE	0.621	1.610
Team Culture (TC)	VIS	0.533	1.417
	PS	0.465	2.152
	SIN	0.550	1.685
	TOR	0.539	1.622
Team emotional Intelligence (TEL)	AWR	0.279	3.588
	AWRO	0.556	1.797
	MGT	0.513	2.650
	MGTO	0.356	1.684

Legend: AWR: Awareness of emotions, AWRO: awareness of other emotions, MGT: management of emotions, MGTO; management of other emotions, OEA: other emotion appraisal, PS: participative safety, ROE: regulation of emotion, SEA, self-emotion appraisal, SIN: support for innovativeness, TOR: task orientation, UOE: use of emotions, VIS: vision

The findings of multi-collinearity analysis depict the tolerance values of all dimensions of formative constructs varies in the range of 0.151 or higher and VIF values are less than 5 so the issue of multicollinearity is addressed in this study.

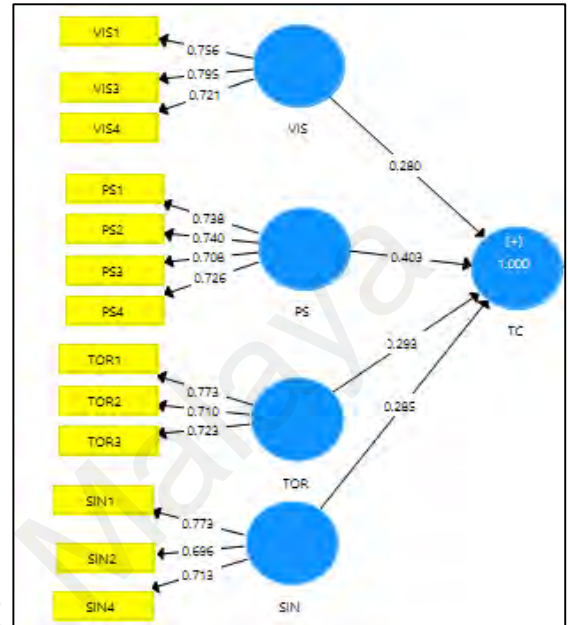
5.9 Second Order Model Analysis

This research study has four hypothesized second-order formative constructs (1) Leader's emotional intelligence (Leader EI), comprised of four dimensions; (2) Team Culture (TC) comprised of four dimensions; (3) Team emotional intelligence (Team EI) comprised of four dimensions and (4) Team performance (TP) comprised of three dimensions. In order to test the validity of second-order formative constructs, the measurement properties of the first order construct should be tested as a pre-requisite to validate the criteria of reliability and validity. For validating second-order formative constructs, four individual measurement models with respective dimensions and indicators were analyzed to be significant. The four measurement models exhibiting direct connections of the first-order model with second order constructs are presented in figures 5.5. Further, the analysis explaining the relationships and estimations are presented in table 5.24.

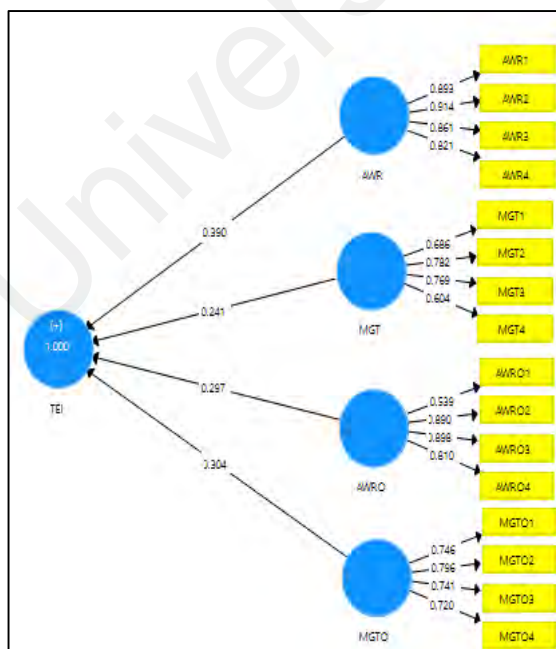
1st Measurement Model - Leader Emotional Intelligence Relationship of First order construct with second order reflective constructs



2nd Measurement Model Team Culture: Relationship of First order construct with second order reflective constructs



3rd Measurement Model Team Emotional Intelligence: Relationship of First order construct with second order reflective constructs



4th Measurement Model Team Performance: Relationship of First order construct with second order reflective constructs

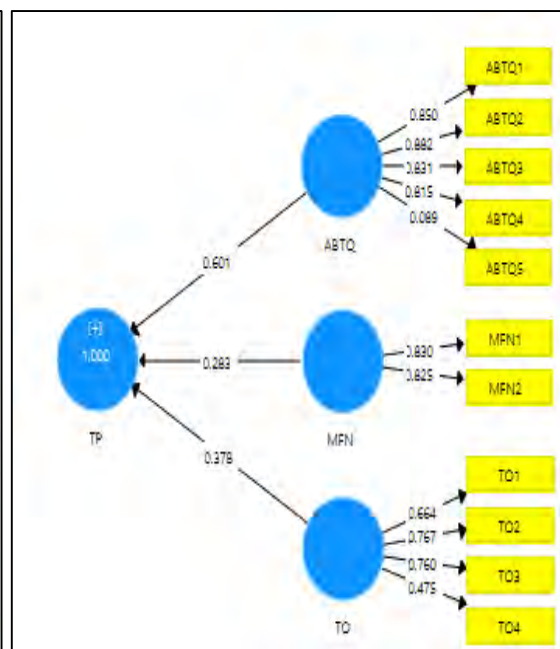


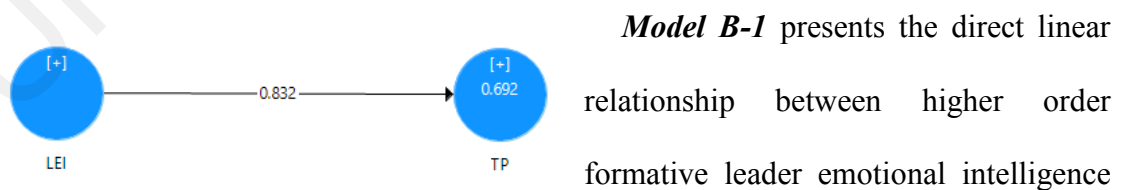
Figure 5-5: Measurement Models

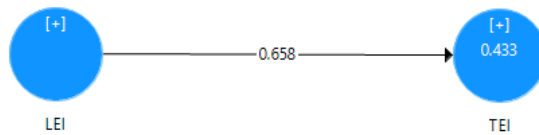
Table 5.24: Analysis of Second-order Formative Constructs

Measurement Models	Second order Formative construct (DV)	First Order Reflective Constructs (IV)	No. of Items	Path coefficients	R ²
1st Measurement Model	Leader emotional Intelligence (LEI)	Self-emotion appraisal (SEA)	4	0.990	1.000
		Other emotion appraisal (OEA)	4	0.919	
		Use of emotions (UOE)	4	0.178	
		Regulation of emotions (ROE)	4	0.991	
2nd Measurement Model	Team culture (TC)	Vision (VIS)	4	0.265	0.990
		Participative safety (PS)	4	0.417	
		Task Orientation (TOR)	4	0.290	
		Support for innovativeness (SIN)	4	0.256	
3rd Measurement Model	Team Emotional Intelligence (Team EI)	Awareness of emotions (AWR)	4	0.990	1.000
		Management of emotions (MGT)	4	0.241	
		Awareness of other emotion (AWRO)	4	0.297	
		Management of other emotion (MGTO)	4	0.904	
4th Measurement Model	Team Performance (TP)	Absolute technical quality (ABTQ)	5	0.601	1.000
		Meeting patient needs (MFN)	2	0.283	
		Turnover (TO)	4	0.978	

5.10 Models evaluating direct relationship between independent and dependent constructs

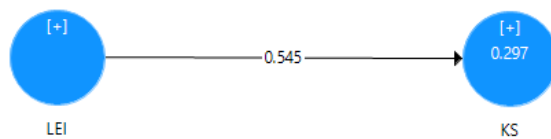
Further, ten models were investigated to explore one to one relationship amongst the constructs. These ten models were proposed by creating a relationship between independent and dependent constructs to investigate direct relationships among the higher order constructs of the research framework. One to one relationship is presented and explained in the following section and the values are explained in table 5.25.





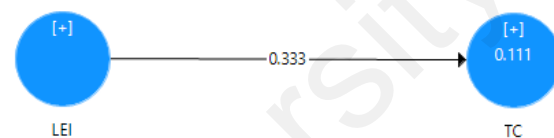
Model B-2 presents the direct linear relationship between higher order formative leader emotional intelligence as

an independent construct with second-order formative team emotional intelligence (TEI) as a dependent construct. The relationship between two constructs is found to significant with a path coefficient of 0.658 and the model accounts for the R^2 value of 0.433.



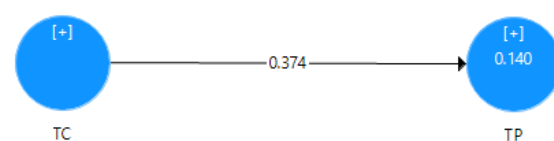
Model B-3 presents the direct linear relationship between higher order formative construct of leader emotional

(LEI) intelligence as an independent construct with first order reflective construct .i.e. knowledge sharing (KS) as a dependent construct. The significant path coefficient of 0.545 reveals strong association amongst constructs. The model accounts for the R^2 value of 0.297.



Model B-4 presents the direct linear relationship between higher order formative construct of leader emotional

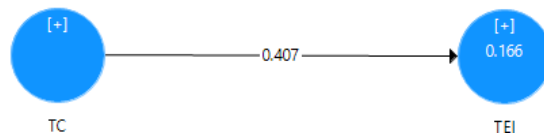
(LEI) intelligence as an independent construct with second-order formative construct .i.e. team culture (TC) as a dependent construct. The outcome of path coefficient .i.e. 0.474 reveals the significant relationship between these two constructs. The model accounts for the R^2 value of 0.224.



Model B-5 presents the direct linear relationship between higher order formative construct of team culture (TC)

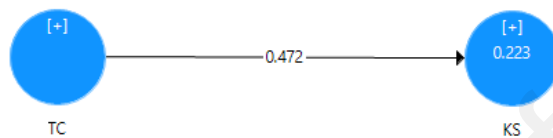
as an independent construct with second-order formative team performance (TP) as a

dependent construct. The significant path coefficient of 0.374 reveals positive association among these two constructs. The model accounts for the R^2 value of 0.140.



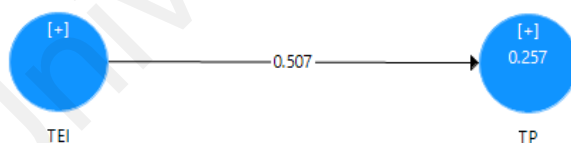
Model B-6 presents the direct linear relationship between higher order formative construct of team culture (TC)

as an independent construct with second-order formative construct .i.e. team emotional intelligence (TEI) as a dependent construct. The relationship between two constructs is found to be significant with a path coefficient of 0.345 and the model accounts for the R^2 value of 0.119.



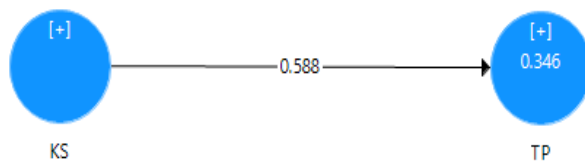
Model B-7 presents the direct linear relationship between higher order formative construct of team culture

(TC) as an independent construct with reflective construct .i.e. knowledge sharing (KS) as a dependent construct. The relationship between two constructs is found to be significant positive with a path coefficient of 0.472 and the model accounts for the R^2 value of 0.223.



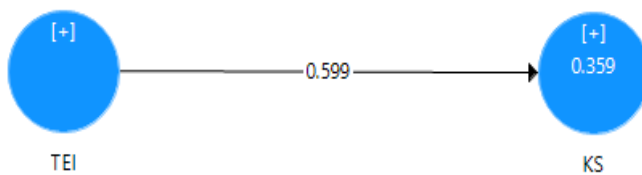
Model B-8 presents the direct linear relationship between higher order formative construct of team

emotional intelligence (TEI) as an independent construct with second-order formative construct .i.e. team performance (TP) as a dependent construct. The value of path coefficient is 0.507 which indicated significant relationship amongst these two variables. The model accounts for the R^2 value of 0.257.



Model B-9 presents the direct linear relationship of reflective construct i.e. Knowledge sharing (KS) as an

independent construct with second-order formative construct i.e. team performance (TP) as a dependent construct. The relationship between two constructs is found to be significant positive with a path coefficient of 0.588 and the model accounts for the R^2 value of 0.346.



Model B-10 presents the direct linear relationship between Team emotional intelligence (Team EI) as

an independent construct with first order reflective construct i.e. knowledge sharing (KS) as a dependent construct. The relationship between two constructs is found to be significant positive with a path coefficient of 0.599 and the model accounts for the R^2 value of 0.359.

Table 5.25: Analysis of direct relationship between independent and dependent constructs

Path Models	Independent variable	Dependent variable	Path coefficients	R^2
Model – B1	Leader EI	Team performance	0.832	0.692
Model – B2	Leader EI	Team EI	0.658	0.433
Model – B3	Leader EI	Knowledge sharing	0.545	0.297
Model – B4	Leader EI	Team culture	0.474	0.224
Model – B5	Team culture	Team performance	0.374	0.140
Model – B6	Team culture	Team EI	0.345	0.119
Model – B7	Team culture	Knowledge sharing	0.472	0.223
Model – B8	Team EI	Team performance	0.507	0.257
Model – B9	Knowledge sharing	Team performance	0.588	0.346
Model – B10	Team EI	Knowledge sharing	0.599	0.359

The direct linear relationship connection between first order latent variable as presented in Table 5.24 depicts that one to one relationship reveals the lower value of R^2 as compared to the models with integrated constructs which have a higher value of R^2 .

5.11 Evaluation of Structural (Inner) Model

After rigorous estimations of measurement model to ensure the reliability and validity of the model in terms of measures and constructs. The secondary stage of PLS-SEM is to assess the structural (inner) model. The primary purpose of assessing structural model is to empirically test the proposed hypothesized relationships established amongst the study constructs. The study has formulated twelve hypotheses based on syllogism of deduction deduced from literature as discussed in chapter 3. The evaluation of the structural model after establishing the adequate reliability and validity of the measurement model indicates the extent how well the empirical data supports the theoretical assumptions conceptualized in the study (Hair et al., 2014). It further allows investigating the predictive capacity of the model and the relationships amongst the hypothesized variables of the study. The current study adopts the following steps for the evaluation of structural model by utilizing PLS-SEM: (1) significance of path coefficient (2) determination of R^2 and (3) the effect size f^2 , (4) predictive relevance by means of Blindfolding and (5) calculating GoF which is discussed in the following sub-sections.

5.11.1 Significance of Path Coefficients

The structural model intends to evaluate the magnitude and significance level of path coefficients. For assessing the relationship amongst the study constructs PLS-SEM is required to perform the technique of bootstrap for assessing the structural model. The table 5.26 presents the configuration and setting used to execute bootstrapping in Smart-PLS.

Table 5.26: configuration and setting in PLS

Selected option		Source
Changes in Sign	No change in sign	Hair et al., 2013
Cases	195 teams (740 respondents)	
Samples	5000	

The results of the structural model are depicted in figure 5.6 and the analysis of the structural model which includes the values of path coefficients, T-statistics, and significance level are reported in table 5.27 after executing the bootstrapping to gauge the structural model. The standard values of path coefficients vary from -1 to +1 depending on the magnitude, sign and the level of significance. The path coefficients closer to +1 indicated strong association whereas the path coefficients near to -1 indicates the significant negative relationship. Further, the path coefficients which are close to zero are considered a weak relationship. Moreover, the level of significance is investigated based on T- statistics. If the T-value is greater than 1.96 it can be assumed that path co-effects are significantly different from zero at a significance level of 5 percent ($\alpha = 0.05$; two-sided tests). Similarly, for 1 percent and 10 percent, the probabilities of error are 2.57 and 1.65 respectively as reported in table 5.27. The results revealed that all path coefficients are reported to be at a significance level of 0.01, except for hypotheses 3 and 8 which are not significant at $p > 0.05$.

Table 5.27: Path coefficients results

Hypotheses No.	Relationship	Path Coefficients	T - Statistics	P Values	Sig. Level	Decision
1	LEI → TP	0.810	10.097	0.000	***	Supported
2	LEI → TEI	0.587	8.436	0.000	***	Supported
3	TEI → TP	-0.192	2.377	0.010	*	Not supported
5	LEI → KS	0.436	6.662	0.000	***	Supported
6	KS → TP	0.227	3.545	0.000	***	Supported
7	TC → TEI	0.212	3.257	0.001	***	Supported
8	TC → TP	0.076	1.754	0.041	nc	Not supported
9	TC → KS	0.327	3.996	0.000	***	Supported

Note: *** $p < 0.001$ level of significance; nc: not significant at $p > 0.05$

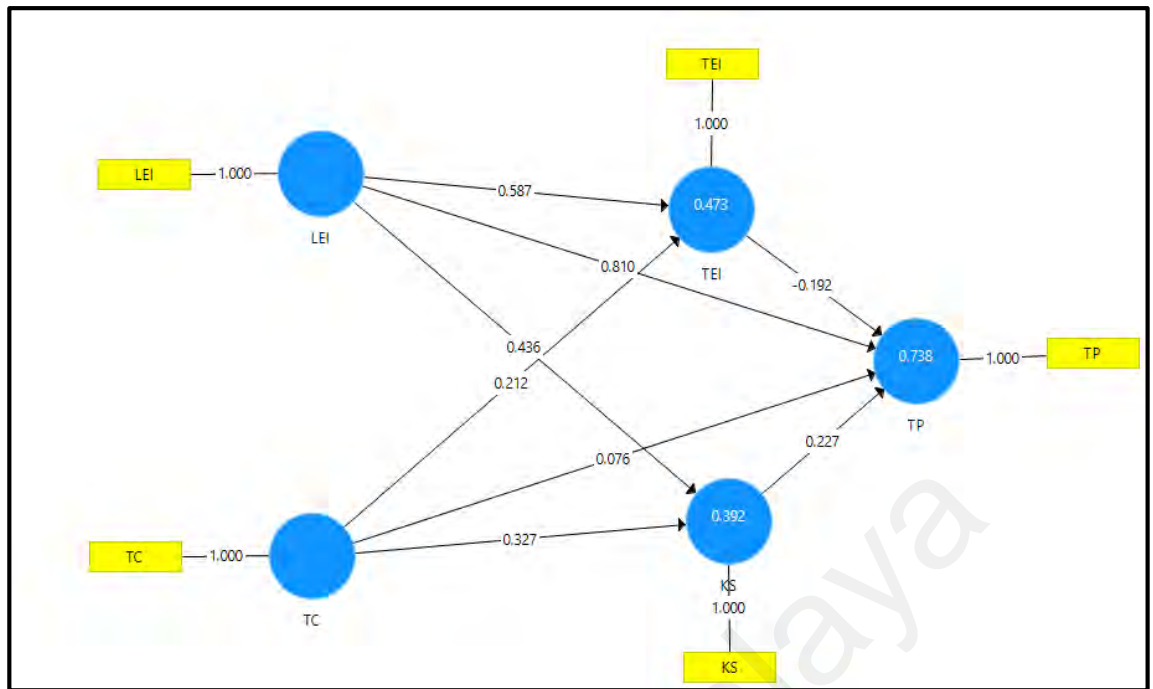
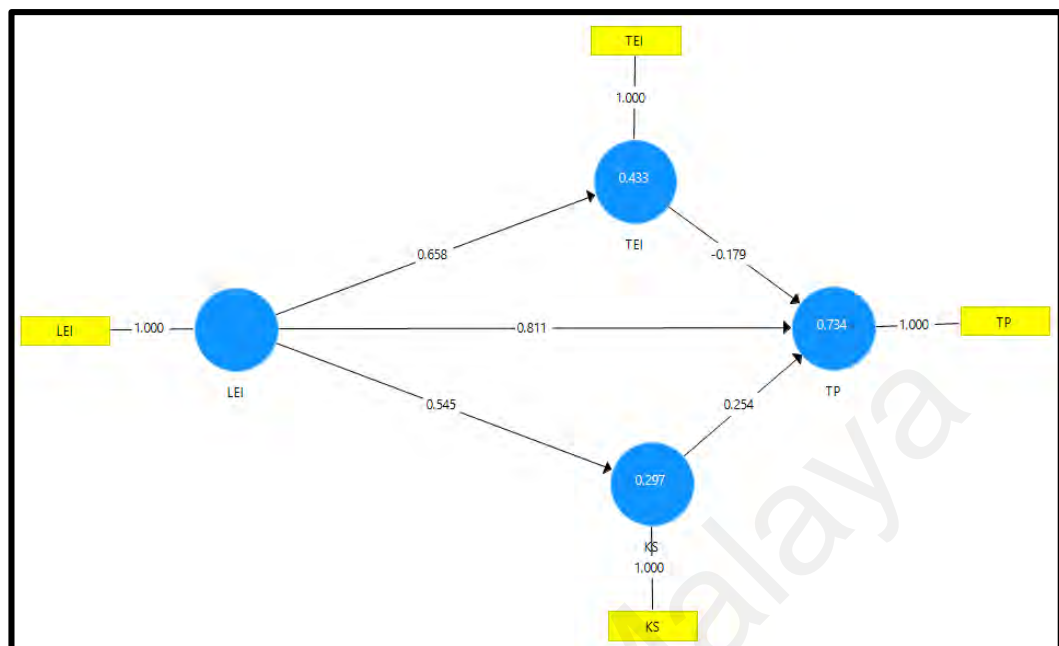


Figure 5-6: PLS-SEM Results: Path coefficients

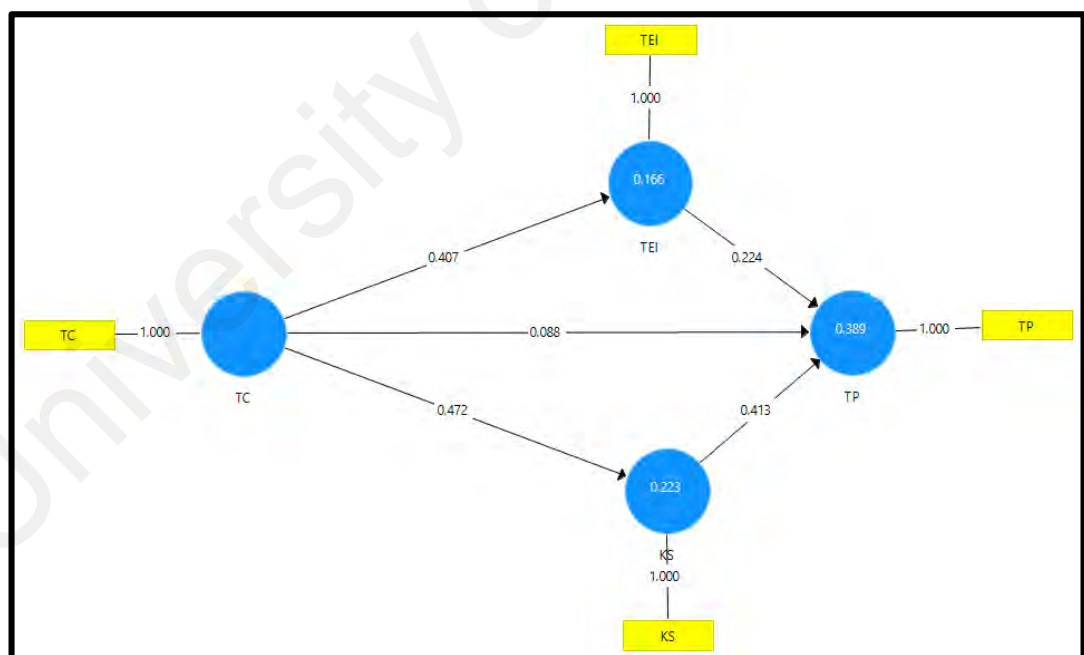
5.11.2 Alternative Path Model

To test the mediated relationships and to further fill the objectives of the current study, alternate structural models were evaluated to optimize the results of the study constructs. Different structural models were assessed in PLS-SEM assuming bidirectional causal relationships amongst the five main constructs of the study: (1) Leader emotional intelligence, (2) Team Culture, (3) Team emotional Intelligence; (4) Knowledge sharing and (5) Team Performance. Assuming different variables in alternate models influence the relationships and the R^2 values of endogenous constructs and the path coefficients of exogenous and endogenous variables. The alternate structural models presented in figure 5.7 are based on theory primarily focused on research questions and hypothesized relationships. The following section presents and explains four alternates to the structural models in addition to the full path model as explained earlier. The analytical results of all alternate models are explained in table 5.28.

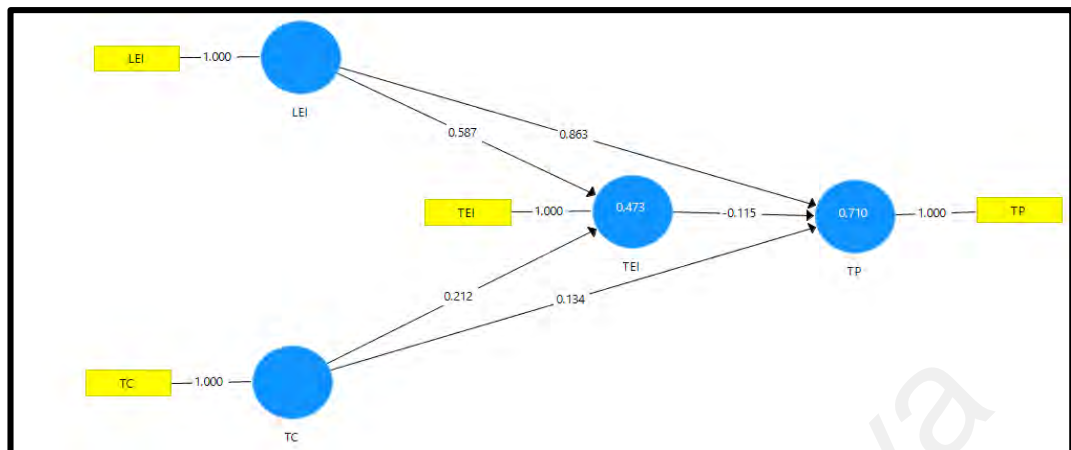
First Alternate Model



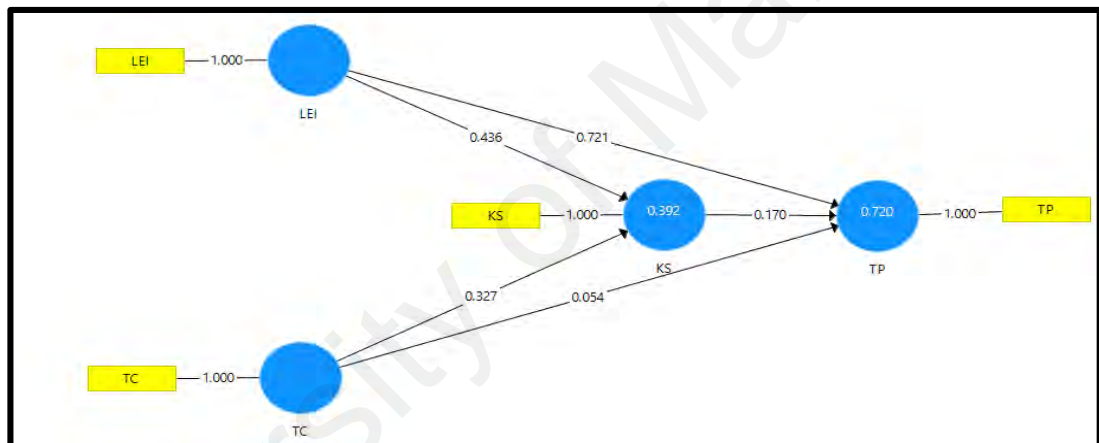
Second Alternate Model



Third Alternate Model



Fourth Alternate Model



Fifth Alternate Model

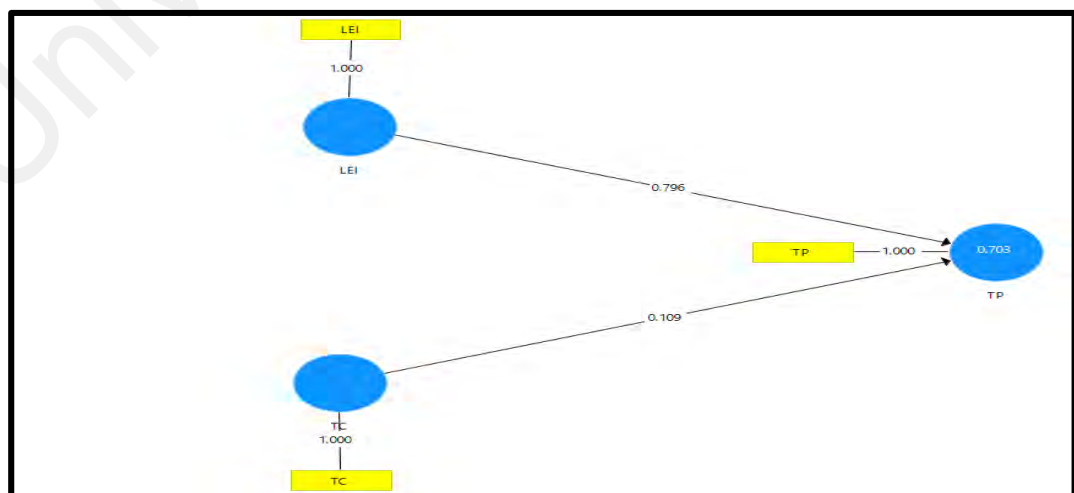


Figure 5-7: Alternate Path Models

Table 5.28: Analysis of Alternative Path Models

Sr. No.	Dependent construct	Independent construct	Path co-efficients	T-statistics	R ²
First Alternate Model	Team Performance	Leader emotional intelligence	0.811	10.089	0.734
		Team emotional Intelligence	-0.179	2.441	
		Knowledge sharing	0.254	4.215	
Second Alternate Model	Team EI	Leader emotional intelligence	0.658	10.675	0.433
	Knowledge sharing	Leader emotional intelligence	0.545	8.737	0.297
	Team Performance	Team Culture	0.088	1.267	0.389
		Team emotional Intelligence	0.224	2.706	
		Knowledge sharing	0.413	5.876	
Third Alternate Model	Team EI	Team Culture	0.407	7.460	0.166
	Knowledge sharing	Team Culture	0.472	6.863	0.223
	Team EI	Leader emotional Intelligence	0.587	9.134	0.473
		Team Culture	0.212	3.055	
		Team emotional Intelligence	0.863	11.814	
Forth Alternate Model	Team Performance	Team Culture	0.134	3.096	0.710
		Team emotional Intelligence	-0.115	1.487	
		Leader emotional Intelligence	0.436	6.923	
	Knowledge sharing	Team Culture	0.327	4.416	0.392
		Leader emotional Intelligence	0.721	13.131	
Fifth Alternate Model	Team Performance	Team Culture	0.054	1.176	0.720
		Knowledge sharing	0.170	2.877	
		Team Culture	0.109	2.308	
	Team Performance	Team Culture	0.109	2.308	0.703
		Leader emotional intelligence	0.796	20.913	

The central premise of running alternate path models is to determine the situation if any particular construct is being removed from the model how it influences the coefficient of determination (R^2) of dependent variable which is Team performance. Therefore, by comparing the results of different models, it is suggested that if any of the variables are being removed from the model it decreases the (R^2) value of team performance. Concluding the construct of Leader Emotional intelligence, Team culture, Team emotional intelligence and team performance jointly influence the team performance.

5.12 Mediation Analysis

The mediated analysis of a study referred to those relationships where the mediating construct absorbs the certain extent of influence between an exogenous and endogenous construct in PLS path model (Hair et al., 2014). Mediation analysis is accomplished by following a Preacher & Hayes (2008) procedures instead of the traditional Sobel test

because this procedure is not limited to the rigid distribution assumption of the data (Hair et al., 2013). Moreover, numerous researchers followed a procedure advised by Baron and Kenny (1986) for multiple regression analysis in PLS. However, their approach for examining mediation has recently been challenged on a number of grounds by several scholars (Preacher & Hayes, 2008; Zhao, Lynch & Chen, 2010). As PLS calculates the joint effect of multiple mediators in one relationship. Therefore, This study employs multiple mediation model as suggested by (Preacher & Hayes, 2008) by utilizing bootstrapping technique by adopting the following steps: (1) assessing direct affects without the presence of mediators in bootstrapping and (2) the significance of the indirect effect and associated T-values are checked using the path coefficients when the mediator is included in the model. The table 5.29 represent the indirect results of the mediating variables of the model which includes team emotional intelligence and knowledge sharing.

According to Preacher and Hayes (2008) investigating multiple mediations in the context of this study is far more complicated instead of examining the simple mediation. The multiple mediation analysis is complex as it involves the decision if the indirect influence exists due to intervening construct and the concerns of isolating the individual mediating influence of each mediating variable which may lead to potential overlapping in multiple mediation analysis (West & Aiken, 1997). This study involves following two-step process of investigating multiple mediation: (1) examination of the total effect to decide if the multiple mediators absorbs some effect of X to Y; and (2) individual mediation analysis to test the hypotheses in context of multiple mediated model (Preacher & Hayes, 2008) as depicted in figure 5.8.

Table 5.29: Mediation Results

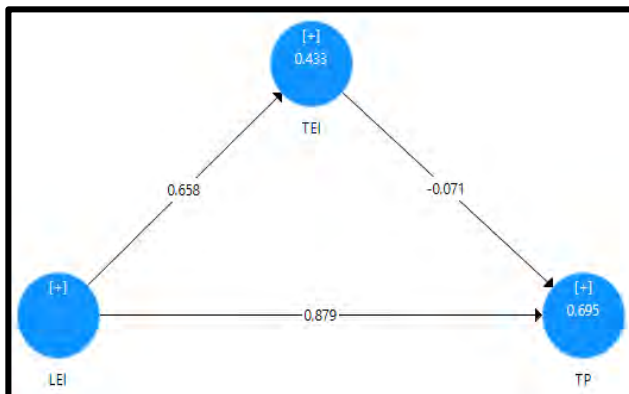
Hypotheses No.	Relationships	Path Coeff.	T Values	P Values	Sig. level	Decision
4	LEI -> TEI -> TP	-0.047	0.894	0.186	ns	Not supported
6	LEI -> KS -> TP	0.105	3.036	0.001	***	Supported
10	TC -> TEI-> TP	0.173	4.094	0.000	***	Supported
12	TC ->- KS >TP	0.250	5.173	0.000	***	Supported

Note: ***p<0.001 level of significance: ns: not significant at p>0.05

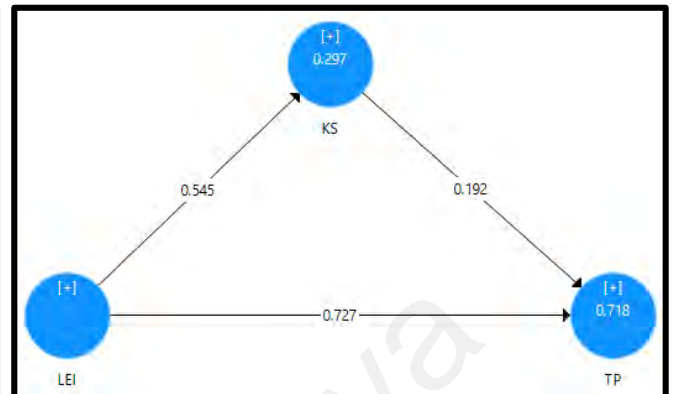
5.12.1 Comparison of Different Mediated Models

The current research considered mediation models with latent predictor, mediator and criterion variables with significant and sizeable indirect effects. The estimate of the indirect effect is used as a measure to estimate mediation with the adoption of modern procedures in PLS-SEM by challenging the conventional approach of mediation analysis by providing more accurate alternative mediated models. Indirect effect (the relationship of TC and TP is mediated by TEI) can be significant. According to Hayes (2017), the significant indirect effect is the a-path multiplied by the b-path. So regardless of whether one of the individual paths is insignificant, the indirect path effect can be significant. The comparative analysis of the mediated models is presented in table 5.30 and 5.31 respectively.

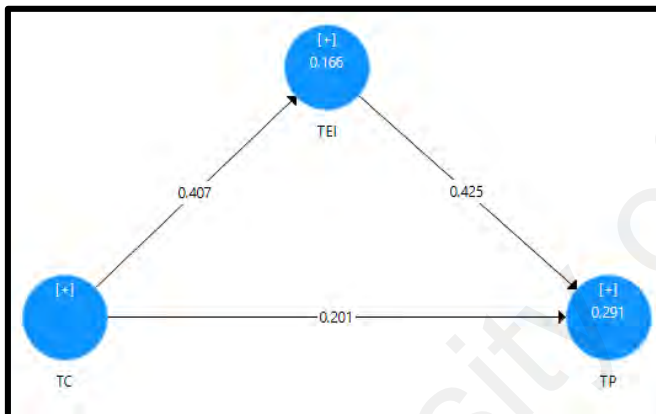
Mediated Model 1



Mediated Model 2



Mediated Model 3



Mediated Model 4

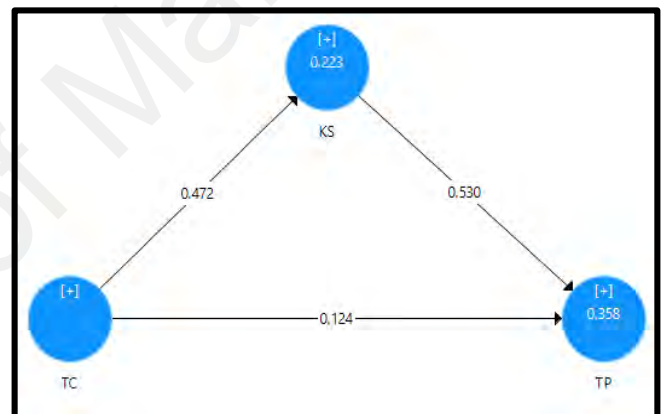


Figure 5-8: Mediated Models

Table 5.30: Coefficient of Determination (R^2) for mediated Models

Mediated Models	Independent Variables	Mediators	Team Performance = R^2
1	Leader emotional intelligence	Team EI	0.695
2	Leader emotional intelligence	Knowledge sharing	0.718
3	Team Culture	Team EI	0.291
4	Team Culture	Knowledge sharing	0.358

The R^2 value based on different mediated models as presented in Figure 5.8 varies. The R^2 values reported in table 5.29 presents the isolated mediated model values which are less than the overall multiple mediated model research model R^2 0.738.

Table 5.31: Analysis of Comparative Mediated Models

Model	IV	Mediator	DV	Relationship	Path Coeff.	T values	R ²
1 st Model	Leader EI	Team EI	Team Performance	LEI->TEI	0.658	10.398	0.695
				TEI->TP	-0.071	0.945	0.433
				LEI->TEI->TP	-0.047	0.894	
2 nd Model	Leader EI	Knowledge sharing	Team Performance	LEI->KS	0.545	8.501	0.297
				KS->TP	0.192	3.223	0.718
				LEI->KS->TP	0.105	3.036	
3 rd Model	Team Culture	Team EI	Team Performance	TC->TEI	0.407	6.555	0.166
				TEI->TP	0.425	6.229	0.291
				TC->TEI->TP	0.131	3.641	
4 th Model	Team Culture	Knowledge sharing	Team Performance	TC->KS	0.472	7.761	0.223
				KS->TP	0.530	7.458	0.358
				TC->KS-TP	0.250	5.173	

5.13 Co-efficient of determination (R²)

The value of the coefficient of determination explains the predictive accuracy of the measure. It represents the combined impact of the independent constructs on dependent constructs. It explains the amount of variance explained in the dependent variable by the influential role played by all independent constructs involve (Hair et al., 2013). According to Chin (2010) “*R² value of 0.67, 0.33 or 0.19 for dependent variables are considered as substantial, moderate or weak respectively*”. The figure 5.8 depicts the structural path model of the current study and described the coefficient of determination (R²). After evaluating the outer model considering the values of path coefficients and coefficients of determination (R²). The values of R² for this study for the exogenous variables are presented in table 5.31 which are considered as substantial for team performance (0.738) and team emotional intelligence (0.473), moderate for KS (0.392) as reported in table 5.32.

Table 5.32: Coefficients of Determination (R²)

Constructs	Coefficients of Determination (R ²)
Team performance (TP)	0.738
Team emotional Intelligence (TEI)	0.473
Knowledge sharing (KS)	0.392

5.14 Blindfolding

The technique of blindfolding allows calculating Q^2 value (Giesser, 1974) which represents criteria of evaluation for the cross-validated predictive relevance of PLS-path model. The Q^2 value should be greater than zero for the endogenous latent variable. The value bigger than zero indicates the PLS path model has a certain amount of predictive relevance for that specific construct. The results for blindfolding revealed for the current research study are presented in table 5.33. All the values of Q^2 are greater than zero indicating predictive relevance for the PLS path model constructs as exhibited in figure 5-9.

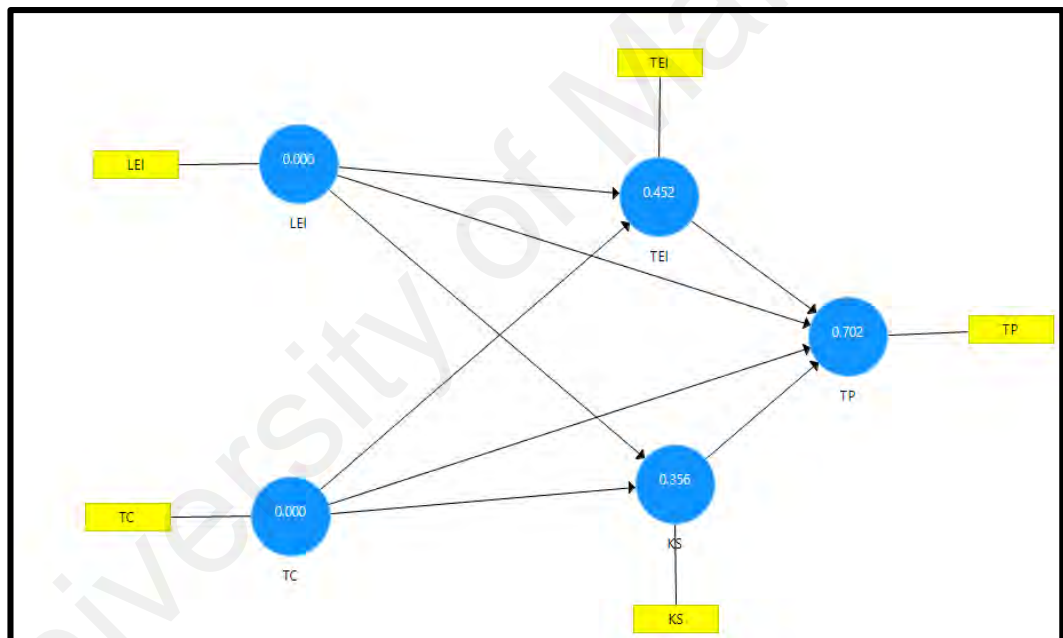


Figure 5-9: Blindfolding - Value of Q^2

Table 5.33: Blindfolding Result

Variables	SSO	SSE	$Q^2=1- SSE/SSO$
Team emotional intelligence (TEI)	195	106.931	0.452
Team Performance (TP)	195	58.138	0.702
Knowledge sharing (KS)	195	125.628	0.356

Leader EI and TP. Similarly; the values of team tenure (0.014), and team size (0.069) is found to be non-significant on the relationship between TC and TP, Inclusion of these non- significant controls did not change the pattern of results hence not included in final research model.

5.16 Effect size f^2 Analysis

The effect size f^2 is the evaluation of R^2 , it refers to the situation if any specific independent variable is removed from the research framework, it examines its subsequent effect size of the removed variable on the dependent variable (Hair et al., 2013). The effect size f^2 is computed with the help of following formula: “ $f^2 = R^2 \text{ included} - R^2 \text{ excluded} / 1 - R^2 \text{ included}$ ”.

According to Chin (2010), the values of f^2 can be compared to 0.02, 0.15, 0.35 to identify whether the independent variables have small, medium, or large effect respectively. Table 5.34 presents the values of R^2 and f^2 for all independent variables on dependent variables. The results show that f^2 value of Leader EI on TP, Team EI, and KS are 1.330, 0.582 and 0.277 identified as large effects respectively. The f^2 value of TC on TP, Team EI, and KS are 0.016, 0.075 and 0.156 identified as no effect and large effect respectively. The f^2 value of Team EI on TP is 0.067 identified as a large effect. Further the f^2 value of KS on TP is 0.108 identified as a medium effect.

Table 5.34: Effect size of constructs - Results of f^2 and R^2

Independent Construct	Dependent Construct	R^2 Included	R^2 excluded	f^2	Effect
Leader emotional Intelligence	Team Performance	0.855	0.649	1.330	Large
	Team emotional intelligence	0.871	0.215	0.582	Large
	Knowledge sharing	0.593	0.407	0.277	Medium
Team culture	Team Performance	0.649	0.854	0.016	No effect
	Team emotional intelligence	0.215	0.870	0.121	Small
	Knowledge sharing	0.407	0.465	0.156	Medium
Team EI	Team performance	0.833	0.533	0.067	Small
Knowledge sharing	Team performance	0.593	0.532	0.108	Medium

5.17 Final Research Model

The overall model of this study consist of the main variables aimed to examine the relationships between leader emotional intelligence, team culture, team emotional intelligence, knowledge sharing and team performance. The causal relationship amongst hypothesized constructs is empirically tested after establishing the reliability and validity of the measurement models. Figure 5.11 depicts the final overall research model displaying the path coefficients the values of R^2 for endogenous constructs.

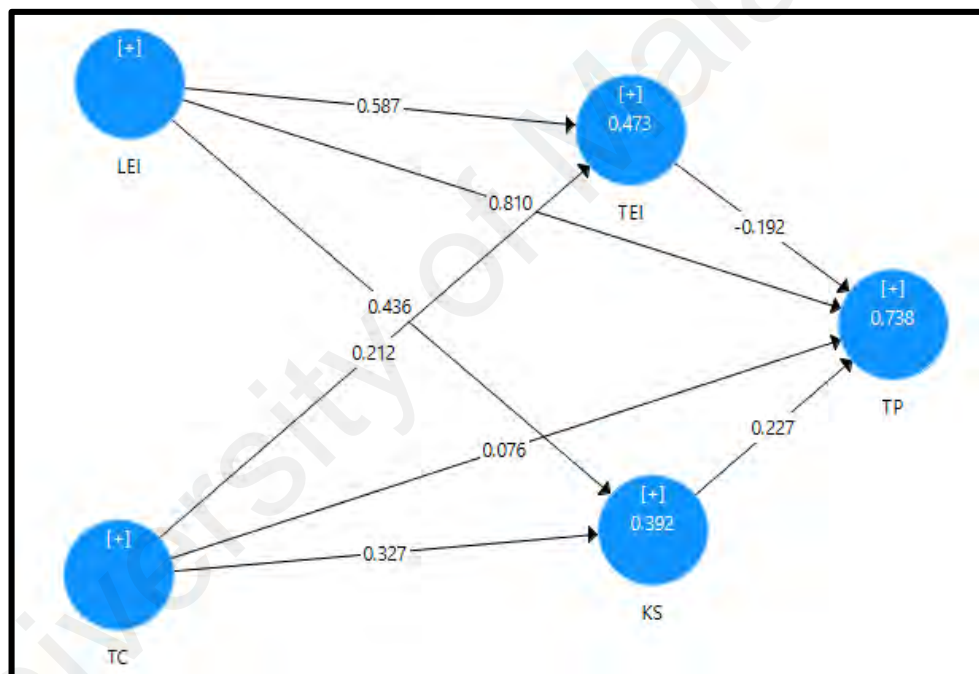


Figure 5-11: Final Research Model

5.18 Goodness of Fit (GoF)

The criteria of goodness of fit (GoF) refers to the assessment of the model fitness. Additionally, it reveals how well the collect data is consistent with the research model and in the otherwise situation, if data is inconsistent with the model it will lead to ambiguous estimations and conclusions drawn from such data becomes questionable.

“Contrary to covariance-based SEM that has the ability to apply goodness of fit measures, PLS-SEM is evaluated according to “Heuristic criteria” for prediction capabilities of theoretical model” (Hair et al., 2013). According to Tenenhaus, Vinzi, Chatelin, and Lauro (2005), “*PLS path modeling does not optimize any global scalar function so that it normally lacks an index that can provide the user with the global validation of the model. The GoF represents an operational solution to this problem as it may be meant as an index for validating the PLS-Model globally*”. The GoF can be calculated by computing the geometric mean of the average communality and the average R^2 by using following formula:

$$\sqrt{\text{GoF}} = \sqrt{\text{Average Communality} * \text{Average } R^2}$$

The criteria of GoF leads to the determination if GoF values are no fit, small, medium or large enough to be considered as globally Valid PLS Model. According to Wetzels, Odekerken-Schröder, and Van Oppen (2009) the criteria to evaluate GoF values is explained in the table 5.35.

Table 5.35: GoF criteria

GoF less than 0.1	Not fit
GoF between 0.1 to 0.25	Small
GoF between 0.25 to 0.36	Medium
GoF greater than 0.36	Large

The indices for R^2 are communality is presented in the table 5.36. R^2 is not to be calculated for independent variables. The GoF is computed as follows:

$$\sqrt{\text{GoF}} = 0.784 * 0.534$$

$$\text{GoF} = 0.402$$

Table 5.36: GoF Computation

Constructs	Communality	R ²
Leader emotional intelligence	0.842	
Team culture	0.737	
Team emotional intelligence	0.816	0.473
Knowledge sharing	0.714	0.392
Team Performance	0.812	0.738
Average	0.784	0.534

According to the criteria explained in table 5.34 the value of the GoF (0.402) indicated that the GoF index of this study is well adequate and large enough in order to be considered globally fit PLS Model. The computation of GoF for this research study indicated the research model is 40.1% achieves the level of fitness.

After thorough in-depth analysis of the proposed hypothesis. The table 5.37 describes the summary of twelve hypothesis testing.

Table 5.37: Summary of Hypotheses results

Research Hypothesis	Relationships	Path Coefficients	T-statistics	F ²	Results
Leader emotional intelligence has a significant positive relationship with team performance.	LEI ->TP	0.810	10.097	1.330	Supported
Leader emotional intelligence has a significant positive relationship with team emotional intelligence.	LEI -> TEI	0.587	8.436	0.582	Supported
There is a significant positive relationship between team emotional intelligence and team performance.	TEI -> TP	-0.192	2.377	0.067	Not supported
The relationship between leader emotional intelligence and team performance is mediated by team emotional intelligence.	LEI -> TEI -> TP	-0.047	0.894		Not supported

Table 5.37,continued,

Research Hypothesis	Relationships	Path Coefficients	T-statistics	F²	Results
Leader emotional intelligence has a significant positive relationship with knowledge sharing.	LEI -> KS	0.436	6.662	0.457	Supported
There is a significant positive relationship between knowledge sharing and team performance.	KS -> TP	0.225	3.545	0.277	Supported
The relationship between leader EI and team performance is mediated by knowledge sharing.	LEI -> KS -> TP	0.105	3.036		Supported
Team culture has a significant positive relationship with team performance.	TC -> TP	0.076	1.754	0.016	Not supported
Team culture has a significantly positive relationship with team emotional intelligence.	TC -> TEI	0.212	3.257	0.121	Supported
The relationship between team culture and team performance is mediated by team emotional intelligence.	TC -> TEI-> TP	0.173	4.094		Supported
Team culture has a significant positive relationship with knowledge sharing.	TC -> KS	0.327	3.996	0.156	Supported
The relationship between team culture and team performance is mediated by team knowledge sharing.	TC ->- KS >TP	0.250	5.173		Supported

5.19 Chapter Summary

The chapter of data analysis is segregated into different which explains the data preparation process, analysis of multivariate assumptions, inter-rater agreement, and aggregation of data, assessment of measurement model, evaluation of proposed research model leading to the analysis of the structural model. The data preparation was carried

out by utilizing SPSS (version 23) which includes coding of data, cleaning of data by identifying outliers and handling of missing values, monotone pattern analysis, demographic analysis of the respondents, non-response bias. The analysis of multivariate assumptions was carried out by testing the normality of the data, testing multi-collinearity and evaluating common method bias. Thereafter the inter-rater agreement for each team was carried out to check the consensus of the team members which leads towards the aggregating of the data at team level considering the fact that unit of analysis for this study is Team. After aggregation, the analytical techniques of the partial least square structural modeling (PLS-SEM) was used to assess the measurements of the reflective-formative model by ensuring the reliability and validity of the employed measures. Further, the proposed research model was tested by PLS-SEM techniques in accordance with the formative-reflective model. Finally, the structural (inner) model was analyzed by testing the proposed hypotheses of the study. Multiple mediation analysis was carried out to check the indirect effect of exogenous variables on endogenous variables. Out of 12 hypotheses, nine hypotheses were accepted and three hypotheses were not supported. The following chapter explains the interpretation discussion and conclusion of the research.

CHAPTER 6: DISCUSSION AND CONCLUSION

6.1 Introduction

This chapter discusses the findings of the analysis and the conclusion of the study based on chapter five. The chapter is distributed into five main sections. The first section briefly presents the overview of the current study along with a concise explanation of the employed research procedures. The second section elaborated the discussion and interpretation of the main findings of the study followed by the third section which highlights the theoretical and practical implications of the current research contributions. Further, the fourth section comes up with the confined limitations of the research and sheds light on the future research avenues. Consequently, the final section of the chapter summarizes the main stance of the study by giving comprehensive conclusion drawn from the current research study.

6.2 Overview of Research Study

The central premise of the current research was to assess the relationship amongst leaders' behavior in regards to emotional intelligence, team culture, knowledge sharing behavior of team members and its impact on team performance in healthcare institutions of Pakistan. In accordances with study aims and objectives the research study is designed to address the following research questions:

Research question (RQ1): What is the relationship between leader emotional intelligence and team performance?

Research question (RQ2): Does team emotional intelligence mediate the relationship between leader emotional intelligence and team performance?

Research question (RQ3): Does knowledge sharing mediate the relationship between leader emotional intelligence and team performance?

Research question (RQ4): What is the relationship between team culture and team performance?

Research question (RQ5): Does team culture influences the development of team emotional intelligence and hence impacts team performance?

Research question (RQ6): Does knowledge sharing mediate the relationship between team culture and team performance?

Based on the above research questions the current research investigated the influence of leader emotional intelligence and team culture on team performance by introducing team emotional intelligence and knowledge sharing as mediating variables. The research was performed in three phases to address the research questions, in accordance to meet the research objectives and to empirically test the proposed hypotheses of the research.

The first phase originates with a systematic review of the literature which includes the research articles, journal publications, meta-analytic studies and critiques in reliance of the research variables which includes emotional intelligence, team culture, team emotional intelligence, knowledge sharing and team performance. The in-depth literature review was conducted in order to critically examine the findings. The analysis of literature review was directed and guided by the research questions and objectives. However, based on the literature; the gap was identified which lead to the development of the proposed research model along with the research objectives. A comprehensive content analysis was carried out in relevance to the study constructs. In accordance with the research variables, two relevant theories SET and EIT were identified to explore the association amongst the constructs of the study. The theoretical underpinning and recommendation of the research scholars lead towards the development of the research model representing the constructs of the study and their relationships.

The second phase comprises of the sample determination, operationalization of the variables, and techniques applied to collecting data. The sample of the study was derived from the target population which was medical and paramedical staff working in teams in biggest private hospitals of Lahore, Pakistan. The data collection was done through the in-person distribution of the surveys on site of the respondents.

The survey questionnaires were designed by adopting the well-established measures from the literature followed by the expert panel discussions to ensure the face and content validity of the designed survey instrument. Further, the questionnaire was pre-tested in context of the research. After expert panel and pre-testing, the necessary suggestions and recommendations were incorporated in the survey which leads to the phase of the pilot study with the target population of the study. The purpose of the pilot study is to determine the internal consistency to ensure the reliability of the survey instrument and the proposed constructs. Resulting in the questionnaire distribution amongst the respondents working in teams. The total of 218 teams was given questionnaires out of which 195 teams returned the valid completed surveys.

The third and final phase of the research concentrates on the data analytical procedures on the collected data. This study employed deductive research approach based on the positivist paradigm. The quantitative research techniques were adopted. The data was prepared by utilizing SPSS (version 23) in which data was cleaned by identifying and handling missing data, eliminating monotone response. The demographic analysis and descriptive statistics were also performed by using SPSS. The further data analytical techniques: partial least square-structural equation modeling were applied by using Smart PLS (version 3 M3). The purpose of partial least square structural modeling (PLS-SEM) was to assess the measurements of the reflective-formative model by ensuring the reliability and validity of the employed measures. Further, the proposed research model

was tested by PLS-SEM techniques in accordance with the formative-reflective model. Finally, the structural (inner) model was analyzed by testing the proposed hypotheses of the study. Multiple mediation analysis was carried out to check the indirect effect of exogenous variables on endogenous variables. The empirical answers to the research questions were provided. Out of 12 developed hypotheses, nine hypotheses were supported and three hypotheses were not supported based on the statistical results. The summary of the research findings is presented in table 6.1. The following section explains the detailed discussion of the study findings while addressing the research questions with aligned objectives.

Table 6.1: Summary of Hypotheses Testing & Research findings

Research questions	Research objectives	Hypotheses	Findings/Results
RQ1: What is the relationship between leader emotional intelligence and team performance?	RO1: To investigate the relationship between leader emotional intelligence and team performance.	Leader emotional intelligence has a significant positive relationship with team performance.	Supported
RQ2: Does team emotional intelligence mediate the relationship between leader emotional intelligence and team performance?	RO2: To examine the influence of team emotional intelligence at the group level and its overall impact on team performance.	Leader emotional intelligence has a significant positive relationship with team emotional intelligence.	Supported
		Team emotional intelligence has a significant positive relationship with team performance.	Not Supported
		The relationship between leader emotional intelligence and team performance is mediated by team emotional intelligence.	Not Supported
RQ3: Does knowledge sharing mediate the relationship between leader emotional intelligence and team performance?	RO3: To examine the role of knowledge sharing in leaders emotional intelligence and its overall impact on team performance.	Leader emotional intelligence has a significant positive relationship with knowledge sharing.	Supported
		Knowledge sharing has a significant positive relationship with team performance.	Supported

Table 6.1, continued

Research questions	Research objectives	Hypotheses	Findings/Results
		The relationship between leader EI and team performance is mediated by knowledge sharing.	Supported
RQ4: What is the relationship between team culture and team performance?	RO4: To investigate the relationship between team culture and team performance.	Team culture has a significant positive relationship with team performance.	Not supported
RQ5: Does team culture influences the development of team emotional intelligence and hence impacts team performance?	RO5: To investigate the influence of team culture in the development of emotional intelligence skill at the group level and its relationship with team performance?	Team culture has a significantly positive relationship with team emotional intelligence.	Supported
		The relationship between team culture and team performance is mediated by team emotional intelligence.	Supported
RQ6: Does knowledge sharing mediate the relationship between team culture and team performance?	RO6: To assess whether knowledge sharing mediate the relationship between team culture and team performance.	Team culture has a significant positive relationship with knowledge sharing.	Supported
		The relationship between team culture and team performance is mediated by team knowledge sharing.	Supported

6.3 Discussion of Findings

After a comprehensive analysis, this study comes up with the important findings in regards to the team performance and other constructs which may influence the performance of teams working in the healthcare institutions of Pakistan. The following sub-sections discuss the findings on the relationships in order to address the research questions.

6.3.1 Leader EI and Team Performance

In order to explore the relationship between leader emotional intelligence and its influence on team performance, this study identified the ability of emotional intelligence as important leadership social competency which may be essential to lead a team in a healthcare environment. The healthcare organizations work in a complex and agile environment with rapidly changing situations which require leaders and members to be versatile to deliver optimum performance. Keeping in mind the end goal to optimize team performance; the leadership of healthcare teams requires certain attributes and capabilities in order to adopt certain changes and survive in complex conditions, which most supervisors find hard to meet. As endorsed in earlier studies (e.g. Foster et al., 2017; Kim et al.; Wan et al., 2014; Weller et al., 2014) which uncovers that managers and administrators who are able to communicate effectively with human resources; influence the performance of teams specifically in the context of healthcare team for optimum patient care.

Leaders are desired to possess the ability of emotional intelligence to cope up with diverse situations. Hence emotional intelligence of leaders is identified as a helpful strategy to lead and manage teams. The study result provides the empirical evidence that the leader's emotional intelligence play a positive role in enhancing the team performance. As emotional intelligence allows leaders to be emotionally intelligent in a way that leaders possess abilities to understand the emotions and expressions of the staff working in healthcare teams. As healthcare teams are working in stressful situations and at the same time they have to be very efficient as their central premise is to work for the benefit of the patients. (Emma Christine Thylefors & Persson, 2014); Thylefors and Persson (2014) stated that healthcare requires significant team's leadership. It is therefore relevant to know more about a team's functional leadership in healthcare – in particular, the extent to which doctors, in their role as team leader, encourage, support and coordinate

teamwork (Berlin, 2010). The ability to use emotion or create emotions to promote problem-solving has a significant impact on the performance of team members. The findings of the relationship in regards to leader emotional intelligence and team performance are validated by recent researchers (e.g. Boies et al., 2015; Neil et al., 2016). Similarly, the role of emotionally intelligent leadership also echoed in nursing (health sector) literature.

Literature suggests that resonant nursing leaders not only ensures the creation of conducive working environment rather they strive to improve the healthcare patient services. Healthy work environment ignites satisfaction and builds positive perceptions of nursing staff towards their job, thereby helping to recruit and retain employees (e.g. Cummings et al., 2010; Squires et al., 2010). Leaders of nursing teams are anticipated to support the team performance. But in the scenario of the continuous evolution of healthcare organizational structure, the role of a nursing leader is increasingly affected by management and first-line care. This could lead to a climate of distrust between nurses and front-line nurses (Udod & Care, 2013). Therefore leaders who possess positive emotions, shape their teams in a better setting by consciously engaging them according to their deliberate behaviors. This leads to higher team performance rather than a team who have ordinary leaders with low emotional intelligence and these findings are in consistent with the previous findings (Chen et al., 2015). Hence leader emotional intelligence is critical proficiency for the team leaders for the positive team outcomes and this study extends the findings relevant to the leader emotional intelligence and team performance.

6.3.2 Relationship of Leader EI, Team EI, and Team performance

This study provides empirical evidence in exploring the relationship of leader's emotional intelligence (Leader EI), team emotional intelligence (Team EI) and team

performance (TP) altogether in context of healthcare teams which has been provided little attention in past. The study identified that leader's EI leads to enhance the competency of developing emotional intelligence skill among team members. As leaders are in charge of the accomplishment of the team tasks under the excellence of their leadership abilities. In that capacity, they are responsible to be well comprehended with their own emotions, as well as for the emotions of the group they lead and the other customers of the group (Koman & Wolff, 2008). This study signifies the positive implications of emotional intelligence for leader s as well as for the members working in teams.

Earlier studies such as Barsade (2000) from Yale University School of Management, learn emotional understanding and found that a positive team and group development will help members to participate and cooperate, reduce conflict and improve the effectiveness of the team. In another study done by Rice (1999), the United States Human Resource Specialist (MEIS) managed 164 insurance company employees. The study found that team members with high emotional intelligence were significantly correlated with the departmental manager on the performance of the customer service team. Thus, the relationship between team EI and team performance is positively associated (Lee & Wong, 2017; Raesli et al., 2016). The premise to build this argument suggests that in order to influence people and rule over them, it is necessary for a leader to possess the knowledge and ability of emotional intelligence competencies. As leaders create an environment which further facilitates the members to be emotionally intelligent for the ultimate team performance. The findings validated that the positive association exists amongst leader emotional intelligence and team emotional intelligence but the relationship between Team EI and TP is not being supported by the data.

According to the study by (Chang et al., 2012) leaders with high emotional intelligence are proficient in creating an encouraging environment which facilitates team members to

capitalize on their emotional intelligence resources positively. Therefore the ability of emotional intelligence for leaders stimulates positivity amongst team members. As productive teams are figured to be mandatory in changing the climate of competitive healthcare environment which may arise a culture of distrust (Udod & Care, 2013). In such circumstances, this study endorsed that leader emotional intelligence can be a source of overcoming barriers to complexities and emerge skill of Team EI amongst team Members Because the competency of emotional intelligence allows individuals in positive expressions of the emotions which further can be utilized in an appropriate manner as endorsed by previous studies (e.g. Druskat & Wolff, 2001a; Heckemann et al., 2015; Koman & Wolff, 2008).

6.3.3 Team emotional intelligence as a mediator

The findings of the study in regards to the mediating role of team emotional intelligence in between leader's EI and TP reveals that team emotional intelligence does not mediate the relationship between leader's emotional intelligence and team performance. Though previous studies (e.g. Chang et al., 2012; Curşeu, Pluut, Boroş, & Meslec, 2015; Koman & Wolff, 2008) support the mediating role of Team EI as it refers to the idea of collective spirit and the extent of team EI interchanges in interpersonal relationships.

It has been argued in the literature that team should work as one identity and capable enough to understand how the team is associated with broader organizational systems and procedures and team EI facilitate such processes (Ghuman, 2011). The findings of the study found to be insignificant in regards to mediating role of Team EI between leader's EI and TP although no prior empirical evidence of relevance to the relationship was found to be insignificant. The findings revealed of this relationship is in contradiction to the findings of Koman and Wolff (2008) and Lee and Wong (2017) who tested and proved

the significant mediating relationship of team emotional intelligence in between leader's emotional intelligence and team performance. This outcome is a significant discovery as the study adopted team emotional intelligence as a formative construct consisting of four dimensions such as awareness of own emotions, management of own emotions, awareness of others emotions and management of others emotions whereas the study of Koman and Wolff (2008) studies the relationship of different dimensions with Leader's EI and TP.

Further team emotional intelligence as a higher order formative construct is being tested via multi-dimensional scale and found that the relationship between leader emotional and team performance is not mediated by team emotional intelligence. The possible reason that teams who are emotionally intelligent as one unit must have three conditions necessary (1) trust, (2) sense of group identity and (3) sense of group efficacy—which can be achieved by insight into the concept and related aspects as highlighted by Kaur, Shri, and Mital (2016) but that was not the scope of this study and can be explored by future research scholars. By comparing the findings (Ceri-Booms, Curşeu, & Oerlemans, 2017); another reason extricated suggests that the mediating role of team EI was found to be a contributing factor mostly in western settings belongs to different institutions other than the healthcare intuitions. The team members of the healthcare institutions are very well focused towards team task and may not influence their team performance by developing and utilizing the skill of team EI.

6.3.4 Relationship between team emotional intelligence and team performance

This research explored team performance as a dependent variable as teams are working at the group level and considered as intellectualized social entities which are working to achieve one common objective and task hence source of ultimate outcomes. This study irrespective of the insignificant relationship of Team EI as a mediator amongst Leader's

EI and TP has explored the direct relationship between Team EI and TP. The findings of this relationship do not support the relationship between the two constructs.

This relationship was hypothesized considering social exchange which suggested that shared experiences can lead to emotional reactions within the teamwork that have an impact on the attitude and behavior of the team. Each team member brings their emotions, moods, feeling and emotional intelligence to the team which in return develops collective emotional intelligence of the working team. Therefore, it is inferred that teams' emotional intelligence have influence on the employees' attitude and behavior, thus also affect the performance of the team (Liu & Liu, 2013) but the empirical evidence of current study controverts the previous findings which open the future research avenues for the research scholars to investigate the factors and antecedents of team emotional intelligence which may lead to enhance team performance by possessing skill of emotional intelligence at team level.

Previous Studies (e.g. Druskat et al., 2013; Stubbs, 2005; Druskat et al., 2017) has emphasized to research the role of emotional intelligence (EI) in workgroups and teams as team EI has proved to be a significant predictor of team performance. Moreover it has also been advocated in literature that developing special group norms may facilitate process of emotions management subsequently resulting in positive team outcomes (Druskat & Wolff, 2001a) which can be explored in future research as the current scope of the study is limited to the team emotional intelligence and does not covers the emotionally competent group norms for the positive team emotional intelligence.

6.3.5 Relationship of Leader's EI, knowledge sharing, and team performance

The relationship amongst three constructs of leader's EI, KS and TP are being empirically tested by formulating three different hypothesized relationships. The empirical findings reveal the significant positive relationship between leader emotional

intelligence and knowledge sharing which is in consistent with the previous research (e.g. Liu & Liu, 2013; Luu, 2014). The empirical evidence of the study suggested that leaders with a high level of emotional intelligence are in better position to create a platform for sharing knowledge among team members. It has been argued by Ansari and Malik (2017) that the ability of emotional intelligence facilitates the knowledge sharing mechanisms for improved job outcomes. Therefore it is inferred and empirically verified that reporting to a leader who is emotionally capable provides members to have an access to various resources which may prove to be fruitful for the effective team outcomes. Furthermore, emotionally intelligent leaders create a conducive environment for the exchange of knowledge hence empirically tested and proved in this study and endorsed by authors (e.g. Chen & Lin, 2013; Cummings, 2004; Srivastava et al., 2006). Therefore, the quality and benefits of knowledge-sharing seem to be influenced by leaders' emotional intelligence. Secondly, the empirical outcomes suggest that the knowledge sharing has a significant direct positive relationship with team performance which is affirmed in earlier literature as well (Argote, 2012; Dong, Bartol, Zhang, & Li, 2017; Jiang et al., 2016; Lee, Gillespie, Mann, & Wearing, 2010). Hence knowledge sharing is a critical team process and considered a significant facilitator for organizational performance through disseminating the process in teams' and one-to-one interactions (Pangil & Moi Chan, 2014; Tung & Chang, 2011).

The study by Obermayer-Kovács, Komlósi, Szenteleki, and Tóth (2015) suggested that emotionally intelligent leaders are vital for developing a culture where employees are encouraged to perform to the best of their ability. When the leader is facilitating, the team members more conveniently share knowledge (Dickson et al., 2001; Obermayer-Kovács et al., 2015) which is highly dependent on the internal and external culture of the team, such as team members' emotional intelligence, their communication mechanism in teamwork. It has been argued in this study in light of the literature that leader's emotional

intelligence influence the knowledge sharing in teams positively. Argote (2012) has identified the cognitive resources available within a team remain underutilized if knowledge is not shared, implying knowledge sharing does not happen automatically in a team (Srivastava et al., 2006). The study revealed and concluded that team performance could be affected by knowledge-sharing mechanism and quality varied due to leaders' emotional competencies. The findings are confirmed by the argument of prior studies (e.g. Hu & Randel, 2014; Plowman & McDonough, 2010).

Thirdly the mediating influence of knowledge sharing on leader's EI and TP was found to be significant. Leader's emotional intelligence provides competencies to a leader which may hinder to provoke team conflict and consequently augment team performance. Therefore this study confirmed empirically that the relationship between leader's emotional intelligence and team performance is mediated by knowledge sharing as endorsed by earlier studies (e.g. Mesmer-Magnus & DeChurch, 2009; Jehn & Chatman, 2000). Further, the findings of the study suggested empirically that leader's EI positively connect knowledge sharing that in turn positively increase team performance. Thus, this study responded to the research question in light of empirical evidence that positive aspect of knowledge sharing influences the team performance. KS overcomes the constraints frequently associated with the diversity and turns it into superior team performance by exploring the relationship between leader's EI, knowledge sharing and team performance as three hypothesis are found to be significant.

6.3.6 Relationship of team culture, team emotional intelligence & team performance

This study examined the extent of team culture other than leader's emotional intelligence that may influence the team performance. The literature on teamwork recommended that there could be many variables which influence teamwork so as its

performance (Levi, 2015). This section discusses the empirically tested findings of the three different hypothesized relationships developed in regards to team culture, team emotional intelligence, and team performance.

Firstly the findings revealed that the relationship exists between team culture and team emotional intelligence. The findings of the studies suggested that teams do not operate in a vacuum there is a certain culture that influences members to understand each other and perform effectively (e.g. Sağ et al., 2016; Shin et al., 2016). Further, the team emotional intelligence in a group develops due to social interactions that occur between group members while sharing different information. As a result, synergy is developed which leads to greater team performance. This argument was built on the study of Koman and Wolff (2008) who highlighted to explore team culture as it may be an important factor in creating the team emotional intelligence. Hence the empirical findings confirm that the establishment of team emotional intelligence may require the introduction of a clear system of cultural values among team members.

According to Ashkanasy (2003), professional subcultures also influence team effectiveness, as he concluded that culture varies in teams. Therefore this study investigated the relationship between team culture and team performance of medical and paramedical teams which found to be significant. The culture of a team encourages team members to embrace change, offer differing viewpoints, and discuss problems openly leading to constructive and positive outcomes and lead to the development of emotionally intelligent teams. As team members are guided by a common objective and work together effectively by understanding and learning from one another. The findings of the study confirmed the suspicion that culture would greatly influence team EI by empirically testing the relationships. Moreover, there are very fewer studies available that examine the relationship of team culture, team emotional intelligence and team performance

altogether, therefore study contributed to the existing body of knowledge by examining these constructs altogether which confirmed the significant relationship of team culture with team EI but not with team performance.

Further, the mediating relationship of Team EI in between Team culture and Team Performance is found to be insignificant. It infers that the mediating relationship of team emotional intelligence in between team culture and team performance implied that the development of a group level EI may require inducing culture and value system within the group that expects members to develop certain behaviors that make them more emotionally aware as a collective unit but it does not influence the team outcomes of healthcare institutions.

6.3.7 Relationship of team culture, knowledge sharing, and team performance

On the basis of current literature; the hypotheses were formulated to test the relationship of team culture, knowledge sharing, and team performance. This study assumed that team culture allow members to share beliefs about the team environment which might have positive implications for the overall team performance (e.g. Hu & Randel, 2014; Hussain, Konar, & Ali, 2016; Mueller, 2014). The findings revealed that culture of team provides mutual support for the team working, facilitate the communication, and enable team members to respect and share knowledge consequently effecting performance in consistent with earlier studies (e.g. Jamshed et al., 2017; Kessel, Kratzer, & Schultz, 2012; Kucharska & Kowalczyk, 2016; Pérez López et al., 2004).

The culture prevails in the team is one of the key factors that may influence teamwork and its impact on team performance. The team's culture is the useful framework for teamwork research identified by Ocident and Farr (1990) that are critical to determining the effective functioning and tendencies of the team: "vision", "participatory security", "support for innovation" and " Task-oriented " as discussed in chapter two and three.

These cultural factors provide a platform for team members to share their knowledge through social interactions and social networks. This argument is advocated by Cheng et al. (2008) as they noted that socializing amongst team members lead to the establishment of trust, cooperation, and friendly environment. Through this networking the employees collect, store, modify, interpret, organize and utilize knowledge when they require it while doing different tasks and projects. In teams, members not only share their hidden difficulties and hazards in the project but also share their intuition based on empirical learning (Kolb, 2014). Through sharing knowledge, employees will also learn the quality of the project and the needs of the knowledge base customers (Gibbert & Krause, 2002; Michelle Bobbitt & Dabholkar, 2001). However, it will enhance the commitment of employees, trust and reciprocity, and other positive attitudes. In the absence of knowledge sharing opportunities, it is impossible to establish a knowledge-based environment to encourage employees to actively share knowledge, integration of labor issues, in charge of work, team difficulties and success (Prasad HC et al., 2014). The findings of the study demonstrate significant relationships amongst team culture, knowledge sharing and team performance in the context of healthcare teams.

The sharing of knowledge in interdisciplinary healthcare teams are required for innovative performance and to accomplish complex tasks. As such innovations rely on expert knowledge from multiple fields. Further, the findings signify that the amount of knowledge, created by healthcare professionals working in teams, is tremendous and sharing of knowledge is identified as a contributing factor in order to deliver the quality of care. Knowledge sharing in healthcare teams is facing several challenges some of which are associated with the prevailing culture (Andreas, 2005). The findings of the current study is aligned with the previous findings (e.g. Fiscella, Mauksch, Bodenheimer, & Salas, 2017; Willard-Grace et al., 2014) that knowledge sharing in positive team culture helps to reduce medical errors, and consequently their cost, by providing a decision

support for staff and ultimately enhance team performance. It is concluded that knowledge sharing in healthcare is influenced by cultural factors which directly or indirectly influences team performance.

6.4 Contributions to the study

The evident investigation of the current research study has theoretical and practical contributions which are articulated in the following sections.

6.4.1 Theoretical Contributions

The study outcomes have following theoretical contributions:

Primarily the findings contribute to existing body of knowledge *by incorporating Leader emotional intelligence, Team culture, Team emotional intelligence, and knowledge sharing and team performance in one study* by integrating theoretical models of social exchange and emotional intelligence. The integrated theoretical paradigms have been widely used to explore the proposed relationships of the study constructs in light of earlier studies. However, combining these theories have collectively and extensively provided a more in-depth understanding of the cognitive processes and behaviors in relation to the proposed study constructs as compared to when each theory is considered alone. The integrated research model *offers a theoretical lens* to understand how leader emotional intelligence can increase the performance of medical and paramedical teams in healthcare institutions.

Secondly, in response to a noted call by Koman & Wolff (2008, 2013) and Bstieler & Hemmert (2010); this is amongst one of the initial studies which investigated the influence of team culture on the development of emotional intelligence skill at the group level that subsequently affect team performance. Further, the integrated research model

offers a theoretical lens to understand how emotionally intelligent leadership and team members can enhance the team performance in private healthcare institutions.

Thirdly a little consideration is shown in earlier studies towards the influence of team culture and leader emotional intelligence on the development of emotional intelligence skill at group level and influence on knowledge sharing behavior that subsequently affect team performance. Consequently, the current study successfully investigated and bridge the gap in the literature by examining the impact of team culture at group level emotional intelligence; as highlighted by Koman and Wolff (2008) to study the influence of team culture in the development of emotional competencies at group level amongst team members. Further, this is amongst very few studies and will contribute to the existing body of knowledge by assessing the extent of team culture on team emotional intelligence and its impact on the outcome of teamwork and performance.

Finally, the current findings expand the literature by exploring the impact of emotional factors which is found substantially in the healthcare sector. EI is one of the utmost importance skill in the service sector as employment involves substantial interpersonal interactions. The effectiveness of performance in these organizations relies heavily on the EI of the people involved as very few studies have been conducted in hospitals sector to date (Quoidbach & Hansenne, 2009). Therefore by using Pakistani sample adds to the growing literature examining the leader EI in non-western settings as highlighted by (Azouzi & Jarboui, 2013; Liu & Liu, 2013). Further, the current findings are in accordance with earlier studies (Druskat & Wolff, 2008; Ghuman, 2011, 2016) as these scholars affirmed that the ability of EI at group level were amongst significant factors affecting team performance. Another opportunity for future research is the continuous development in enhancing research models.

6.4.2 Methodological Contributions

The current study was designed following the assumptions of positivist paradigm and quantitative approach to explore the proposed relationships. The quantitative approach was selected as the study intended to observe the human behavior which is significant social reality and can be investigated objectively by utilizing the systematic objective approaches.

Firstly, the data aggregation indices evaluate rigorously how well the factors of the team are synchronized amongst team members within teams. The estimation of data aggregation indices determines the extent of consensus amongst team members working in teams. A greater level of degree indicated the higher extent of agreement within teams.

Secondly, the current research has significant methodological implications as it operationalizes the constructs as higher order reflective-formative. For estimating the second-order formative relationship, a repeated indicator approach by computing the latent value scores for the second-order formative constructs was used. Various reasons have been presented to advocate the utilization of these hierarchical latent variable models over the utilization of models comprising exclusively of first-order measurements (e.g. Becker, Klein, & Wetzels, 2012; Wetzels et al., 2009). These scholars postulate that using the hierarchical latent variable models reduces the confounding interpretation and make the model simple.

Moreover, the identification of the first-order dimension and the respective items is of extreme importance. As the misinterpretation in terms of reflective or formative nature may arise the type I and type II error while performing analysis (Edwards & Bagozzi, 2000). Hence the study offers justified reasons to use the second-order hierarchical latent variable model for examining the relationships. Another benefit of using repeated indicator approach lies in its capacity to estimate all variables simultaneously rather

examine the first order dimensions and second-order constructs independently. Thereby to minimize and avoid interpretational confounding. This method of the operationalization of constructs by using repeated indicator approach makes this analysis and findings of the study unique.

6.4.3 Practical Contributions

In addition to theoretical and methodological contributions; this study also provides a number of practical implications for the healthcare leadership and management.

Firstly the study provides empirically tested unique research model to healthcare practitioners in regards to leader's emotional intelligence, team culture, Team EI and knowledge sharing that may be applied for accelerating team performance in a fast-paced environment and cut-throat business pressures. In the competitive business environment, much focus has been given to the performance of employees working in teams as the team approach to healthcare has become a common approach to organize quality services. This will provide a significant contribution to the practical implications in terms of applying these predictors in healthcare organization to enhance and optimize team performance.

Secondly, it enables business professionals to practically to understand that the sharing of knowledge in work groups is one of the principal execution conduct essential for accomplishing, managing, or enhancing team adequacy in a fast-paced business environment.

Thirdly, this examination will empower academicians and specialists in the field of leadership to understand how information sharing inside the group is affected by the emotional abilities of the team leader. Moreover, this study will add to the congregation of existing knowledge by giving better comprehension to plan human resources working in teams. As the difficulties of structuring healthcare reforms in the advanced setting are

extensive because of perpetual upgrades in medical innovations, prominent level of knowledge and increased mindfulness among the patient client population.

Finally, in practice, this study implies to provide significant contributions to the group viability. The team working in healthcare institutions antagonizing with demanding job tasks where the emotional intelligence of leaders can provide support by understanding feelings of the group and can make a pool of information offering to other medicinal services experts. This investigation offers observational proof to medicinal services initiative to familiarize workers with non-cognitive capacities like the ability of emotional intelligence and urge them to share knowledge for best results by viable use of assets accelerating team performance.

6.5 Limitations and Future Research Direction

The following study limitations are unavoidable despite the fact that study has achieved the objective. Firstly the sample of the research provided a unique insight into the healthcare teams, the sample taken from other public hospital teams might have produced different results. Therefore the effects assessed with this research are significant for the private hospital's teams and the results may not be generalized to other sectors. Therefore future research may be conducted to analyze the role of leader emotional intelligence and team culture on team performance in public sector hospitals.

Secondly the sample of the research comprised of interdisciplinary teams which are highly developed and empowered to make decisions. These teams characterized by all members participating in the team's activities, sharing knowledge and relying on each other to accomplish team goals. That could have been a contributing factor related to performance. Future research can extend the horizon of teams by taking samples of the different types of supporting teams working in healthcare institutions.

Thirdly this research is amongst the very few attempts that has made to analyze the association between higher order formative dependent and independent variables including the influence of mediating variables in the context of private hospitals of Pakistan. The results from this study may not be the reflection of another state of the art healthcare institutions of the country. The current scope of the study does not focus on the individual dimensions of the construct and its subsequent impact on team performance. Therefore future research could be a focus on analyzing the impact of first order reflective dimensions.

Fourthly this study is designed under quantitative deductive and cross-sectional time frame that was considered appropriate for testing the current model of the research. However, in future, research can be designed on a longitudinal design that can be used to test the proposed relationships. It is believed that longitudinal study may help to better understand the causal relationships among the study variables in different periods of time.

6.6 Conclusion

The central purpose of the current research is to produce unique research model by investigating the impact of leader emotional intelligence and team culture on team performance with the mediating role of team emotional intelligence and knowledge sharing. In accordance with the research objectives, the six research questions were formulated: (1) what is the relationship between leader's emotional intelligence and team performance? (2) Does team emotional intelligence mediate the relationship between leader's emotional intelligence and team performance? (3): Does knowledge sharing mediate the relationship between leader's emotional intelligence and team performance? (4): What is the relationship between team culture and team performance? (5): Does team culture influences the development of team emotional intelligence and hence impacts

team performance? And (6): Does knowledge sharing mediate the relationship between team culture and team performance?

This study postulates that leader's emotional intelligence has a significant positive relationship with team performance, team emotional intelligence and knowledge sharing. Moreover the mediating relationships reveals the following: (1) team emotional intelligence do not mediate the relationship between leader emotional intelligence and team performance and (2) the relationship of Leader's EI and TP is mediated by KS, (3) Team EI mediates the relationship between TC and TP and (4) the relationship between team culture and team performance is mediated by knowledge sharing.

Two main theoretical models: (1) social exchange model and (2) emotional intelligence model was adopted and integrated to describe the causal linkages between leader's emotional intelligence, team culture, and team performance. In order to test the hypotheses, this study employed quantitative deductive approach following the assumptions of positivist paradigm.

A survey questionnaire consists of 67 items reflecting the proposed research constructs were developed for the purpose of primary data collection. The data was collected from 218 teams comprised of 811 respondents from 9 private hospitals in Pakistan. Since this study is quantitative with the deductive approach, it employs partial least squares - structural equation modeling PLS-SEM approach to validate and confirm the research model by testing the hypothesized relationships. The findings of the study provide empirical evidence for the significant impact of leader emotional intelligence and team culture on team performance. The PLS results indicated that all evaluation criteria's have a significant statistical impact on team performance except the mediating role of team emotion intelligence in between Leader's EI and TP. Furthermore the findings of the study support that leader emotional intelligence and team culture have a significant

positive relationship with team performance. It has also indicated that leaders' emotional intelligence is a direct predictor of team performance and team emotional intelligence and knowledge sharing. While being a promising study providing an empirical support and additional research is required to explore broad nature of the relationship between the constructs. Consequently, this study based on a hypothetical model with empirical support set the platform for additional research and progress, in theory, to understand how leader's emotional intelligence and team culture can enhance team performance in health-care organizations.

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LIST OF PUBLICATIONS AND PAPERS PRESENTED

1. Jamshed, S., Nor, M. N. M., & Bakar, R. A. (2017). Enhancing Team Effectiveness Through Leader Emotional Intelligence and Knowledge Sharing: Structural Equation Modeling Approach. *International Online Journal of Educational Leadership*, 1(1), 34-59. (Published by Institute of Educational Leadership, Faculty of Education, University of Malaya)
2. Jamshed, S., Bakar, R. A., & Nazri. M. (2018). Emotionally intelligent Teams: Can Emotional Intelligence Enhance Performance. *Arabian Journal of Business and Management Review (Kuwait Chapter)*, 7(1), 23-33.
3. Jamshed, S., Nazri. M., Bakar, R. A., Majeed, N. (2018). The effect of Knowledge Sharing On Team Performance through Lens of Team Culture. *Arabian Journal of Business and Management Review (Oman Chapter)*. 7(3), 72-87. DOI: [10.12816/0046986](https://doi.org/10.12816/0046986)
4. Conceptual Paper entitled “Emotionally intelligent Teams: Can Emotional Intelligence Enhance Performance presented at ISSDM Conference, UTM, Kuala Lumpur in October 2016.