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TEAM COHESION AND ITS CONTRIBUTION IN ENHANCING TEAM PERFORMANCE: THE CASE STUDY OF ATHLETE TIRUNESH DIBABA SPORT TRAINING CENTER U- 20 FOOTBALL TEAM, CENTRAL ETHIOPIA

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A SENIOR RESEARCH THESIS SUBMITTED TO JIMMA UNIVERSITY, SCHOOL OF NATURAL SCIENCE FOR IN PARTIAL FULFILLMENT OF REQUERIMENTS OF THE MASTER'S DEGREE OF SCIENCES (M.SC) IN SPORT SCIENCE

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ABBREVIATIONS AND ACRONYMS

ATG-S	Attractions to Group-Social
ATG-T	Attractions to Group-Task
GCS	Gross Cohesiveness Scale
GEQ	Group Environment Questionnaire
GI-S	Group Integration-Social
GI-T	Group Integration-Task
HCHP-GCS	Harvard Community Health Plan Group Cohesiveness Scale
IPO	Input-Process-Output
KMO	Kaiser-Meyer-Olkin
MCAR	Missing Completely at Random
MTCS	Multidimensional Team Cohesion Scale
MTMM	Multitrait-Multimethod
PCS	Perceived Cohesion Scale
SA	Staff Attraction
SCQ	Sport Cohesiveness Questionnaire
SMCs	Square Multiple Correlations
TC	Team Cohesion
TPQ	Team Performance Questionnaire

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ABSTRACT

Cohesion is one of the most prominent team variables considered fundamental to teams and team functioning. It is a more complex psychological construct with a multidimensional structure (i.e. it consists of multiple aspects that are taken together form cohesion). In terms of Input-Process-Output (IPO) models of team effectiveness, cohesion can be considered as the 'process' that is affected by team inputs (e.g. team context and leadership style) and that in turn affects team outputs. Cohesion is considered important and enjoys continued research interest since it has a link with important team outcomes such as team success and performance. This link has been found in many team contexts including sports teams. However, the degree of cohesiveness of U-20 football team of athlete Tirunesh Dibaba Sport Training Center and its contribution to enhancing the performance of the team were not clear yet.

The objective of the study was to assess the level of cohesiveness and the contributions of its cohesiveness in enhancing team performance in terms of win/loss record of the U-20 football team in the National U-20 Football Premier League of 2018/19 season.

A mixed study design was employed to assess level of cohesion and its contribution towards promoting team performance among 46 players, 5 coaches and 2 technical officers of the U-20 football team of athlete Tirunesh Dibaba Sport Training Center, central Ethiopia in National U-20 Football Premier League of 2018/19 season using census sampling technique. Required data for evaluation of team cohesion was collected using pre-developed GEQ within proven reliability; and the expected performance of the team was assessed using team performance questionnaire containing 32 items in six subscales while the actual performance of the team was determined by analysis of win/lose records of the team on the National U-20 Football Teams' Premier League in the 2018/19 season. Collected data was analyzed using descriptive statistical methods of data analysis. However, collected qualitative data through interview questionnaire was analyzed using content method of data analysis. Necessary ethical clearances were obtained from concerned bodies.

U-20 football team of athlete Tirunesh Dibaba Sport Training Center played 15 games; and it won five and lost five. The actual performance of the team stood at sixth out of ten. The level of team cohesion of U-20 football team of athlete Tirunesh Dibaba Sport Training Center was moderate in terms of social-, task- and overall-cohesion levels. Its cohesion contributed accordingly towards its actual performance.

U-20 Football Team was socially cohesive at moderate level and also moderately task cohesive. Its level of overall cohesion was medium. The actual performance of the team was nearly moderate. Thus, there is a positive relationship between the degree of cohesion and actual performance. Necessary recommendations were also suggested.

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CHAPTER ONE:

INTRODUCTION

1.1 Background of the Study

Sports play an important role in many peoples' lives whether they are athletes, football and volley ball teams' members, coaches, officials or spectators. The competition, enjoyment, conditioning and social aspects of sports draw millions of people to participate. Most people begin their athletic experience with sports at a young age; nearly 90 percent of children ages 5-17 will play some type of organized sport (Jellineck and Durant, 2004). Hilgers (2006) estimates that to constitute 41 million youth participants in the United States alone. Many participate because sports aid in the development of children (Turman, 2007). Sports can help children develop character, confidence, appropriate social behavior, and learn lessons about winning and losing (McGuire and Cook, 1985). It is clear that sports contribute greatly to development, but the teams are also an important social group.

Youth sports teams can vary in size, gender, and age; however, they are considered a salient social group (Sullivan and Feltz, 2003). A group can be defined as people who are interdependent with each other (O'Hair and Wiemann, 2004) and teams consist of players who depend on each other to perform. A team can be defined more specifically as a group working toward a common goal (Francis and Young, 1979; Quick, 1992).

Michael Jordan (2009, p. 51), regarding the need for teamwork, stated that "Talent wins games, but teamwork and intelligence win championships." Carlos Alberto Parreira (2006), in a similar line of argument, inferred that team spirit is absolutely essential for stars to shine and achievements to happen. Phil Jackson (1997) highlighted the need for the exchange of "I" for "we." Rezende (2006) goes further pointing out that cohesion is the key element for the existence of a real team.

Researchers have identified two types of cohesion; namely task cohesion and social cohesion. Task cohesion is defined as a general orientation toward achieving a group's goals and objectives, while social cohesion is defined as a general orientation toward developing and maintaining social relationships within a team (Carron, Widmeyer and Brawley, 1985). Also, social cohesion is defined as non-task in focus that refers to social relationships (i.e. friendships, bonding) within a group or team. To achieve high social cohesion, it is essential for the group members to feel accepted and respected by one another and to value their membership in a sport group (Yukelson et al., 1984). Social cohesion is apparent in feelings of pride, unison, harmony and a sense of shared purpose. Social cohesion is often identified

by the sense of ‘we’ or togetherness exhibited by successful athletic teams (Carron and Spink, 1993).In the realm of sport, a coach and the team must be concerned with both task and social cohesion. This is because increase in both task and social cohesion will ultimately lead to success. It is important to appreciate that success does not always mean winning. Goals are an important ingredient of success and they play a major role in the development of individual athletes' skill and in the development of task cohesion. However, not all teams have the ability to win, but they can all experience success through the accomplishment of goals. Success is an important aspect of task cohesion, therefore, the more successes a team experiences, the higher the cohesion (Carron, 1982). Indeed, goals can help significantly in the development of task cohesion, hence increasing chances of successful performance.

Coaching teams to better performance in the corporate or sports environment is no simple task, even when the best individual talents are brought together. Team performance is related to a number of factors. Karakowsky et al. (2004) mention perceptions and influences among men and women working in teams. Costa (2003) discusses the importance of confidence in the effectiveness of the team. Jackson (2014, p. 14) pointed out the need for “[...] years of nurturing to get young athletes to step outside their egos and fully engage in a group experience.”

Nevertheless, and regardless of the team environment, group performance is closely associated with the relationship of its members, the team cohesion. Authors such as Carron et al. (1985), Robbins (2002), Wagner (2006), and Machado (2006) posit that team cohesion is a key factor in the group’s performance. Jackson (2014) mentions the importance of cohesion by describing it as an art, “The art of transforming a group of young, ambitious individuals into an integrated championship team.”

There are two major types of teams; namely co-interacting- and interacting-teams. Co-acting sport teams are teams in which the outcome of a contest is a result of individual performance scores that are averaged to arrive at a team score such as golf or bowling teams. Performance and the attainment of goals then become an individual responsibility. In this perspective, cohesion can have a positive or negative influence on success. Co-acting teams are generally more successful in low cohesion situations, whereas the opposite is true for interacting teams (Landers, Wilkinson, Hatfield, and Barber, 1982). Bird (1997) attributed this to the fact that in interacting team situations, the performance of one team member can either benefit or hinder the achievement of group goals; therefore, the effective interweaving of talents and personalities is advantageous. Landers et al., (1982) determined that the nature of the sport group, that is, whether it is an interacting or co-acting sport, will determine how cohesive the

group becomes. Carron and Chelladurai (1981) found that perceptions of cohesion differed among athletes competing in interacting versus co-acting sports. Landers et al., (1982) stated that "sports involving interaction like basketball are more likely to display a positive relationship between cohesion and performance, whereas co-acting sport teams tend to display a negative or null relationship between these same variables" (p. 182). In sport today, the role of the coaching staff has gone beyond rolling a ball out and administering pep talk. According to Anshe (1994) one of the greatest challenges to coaches in sport is to ensure that all athletes are invested in the team's long term success (p. 280). Essentially, coaches are being called upon to develop cohesion. Interweaving individual talents and channeling the energies of these individuals and their behaviors toward the accomplishment of predetermined team goals can be essential in building cohesion.

Given the current scenario, the need for a more comprehensive understanding of team cohesion and its contribution to enhancing team performance assist in the development and management of team cohesion and is the key factor to maximizing team performance in any environment. From the foregoing descriptions, the significance of undertaking an empirical study into the issues of football team cohesion and its contribution to enhancing team performance is vital. To this end, therefore; there was the need to carry out a similar study to find out whether the same factors have any effect in team cohesion and performance within U-20 football team of athlete Tirunesh Dibaba Sport Training Center operating in Asella town, central Ethiopia in National U-20 Football Premier League in 2018/19 season.

1.2 Statement of Problem

The degree of cohesiveness of U-20 football team of athlete Tirunesh Dibaba Sport Training Center and its contribution to enhancing the performance of this team are not clear yet. This research makes the assumption that team-based structures in sporting teams provide an appropriate form of work-design. However, it is also recognized that the importance of teams will vary in different team contexts. One of the most prominent team variables considered fundamental to teams and team functioning is 'cohesion' (Lott and Lott, 1965; Carron and Loughead, 2000). In fact cohesion has been described as a defining characteristic of a team (Hackman, 1992), even an essential team characteristic (Golembiewski, 1962). Previously, cohesion was considered to be unidimensional comprising only one aspect, most frequently referred to as 'attraction to the team'. However, cohesion is a more complex psychological construct with a multidimensional structure (i.e. it consists of multiple aspects that are taken together form cohesion). In terms of Input-Process-Output (IPO) models of team

effectiveness, cohesion can be considered a 'process' that is affected by team inputs (e.g. team context and leadership style) and that in turn affects team outputs (such as productivity and innovativeness) (Landy and Conte, 2007). One of the reasons why cohesion is considered important and enjoys continued research interest is due to its link with important team outcomes such as team success and performance. This link has been found in many team contexts including sports teams (Carron, Colman, Wheeler, and Stevens, 2002b) and military teams (Tziner, 1982a).

In relation to the problem of the thematic study area, empirical findings reveal that there is positive relationship between high level of team cohesion and good or successful team performance. For instance, Muthiaine (2014) carried out an empirical study to examine the relationship between team cohesion and sports performance among basketball teams in the 2010 National League in Kenya. His findings indicate that the more the number of players in a team, the fewer the friends, leading to lower social cohesion and he inferred that this finding may negatively influence team performance; conversely, majority 103(75%) of them indicated that they did not have players that they disliked. The great number of dislikes within members of team had a negative effect on social and task cohesion, thus hindering successful performance; majority of respondents indicated that they played as a team 124(96%), celebrate as a team and lose as a team, 124 (96%), and this showed the evidence of strong team cohesion where team-mates celebrated a win or loss together. However, the friendship within the group had a positive effect on social cohesion in a team hence, improving performance. Most outstanding indicators of strong team cohesion was that majority of players 81 (62%) in the teams had the desire to help each other, majority 66 (51%) were happy with the amount of influence they had on their teams, and majority 64 (49%) assumed responsibility for poor performance in the teams. The results of analysis showed that there was a significance relationship between team cohesion and team performance in the National Classic League; and also the results showed that there was a significant relationship between teams' size and the extent of cohesiveness in the same League. It was difficult to maintain social and task cohesion in the large teams as compared to small teams. This had a negative effect on successful performance. Large size of the teams had a significant relationship on the extent of cohesion. It was apparent that it was easier to promote cohesion in smaller teams than large ones; friendships within a group would promote cohesion and team performance and the study indicated that there were some players who were disliked by their teammates which negatively affected team cohesion and good performance; there was positive task cohesion in teams where team mates celebrated wins

and losses of matches together; there was no significant difference between male and female respondents with regard to team cohesion among them; and both social and task cohesion are positively related to successful performance in basketball. Researchers have identified two types of cohesion; namely task cohesion and social cohesion. Task cohesion is defined as a general orientation toward achieving a group's goals and objectives, while social cohesion is defined as a general orientation toward developing and maintaining social relationships within a group (Carron, Widmeyer and Brawley, 1985). In the realm of sport, a coach and the team must be concerned with both task and social cohesion. This is because increase in both task and social cohesion will ultimately lead to success. It is important to appreciate that success does not always mean winning. Goals are an important ingredient of success and they play a major role in the development of individual athletes' skill and in the development of task cohesion. However, not all teams have the ability to win, but they can all experience success through the accomplishment of goals. Success is an important aspect of task cohesion, therefore, the more successes a team experiences, the higher the cohesion (Carron, 1982). Indeed, goals can help significantly in the development of task cohesion, hence increasing chances of success.

The literature so far reviewed indicates a significant relationship between cohesion and team performance, both positive and negative relationships. In a positive relationship, the study by Carron et al., (1985) offers clear evidence that Real-world sports teams benefit from high levels of task cohesion. In a negative relationship, Carron et al., (1982) found that success can be realized even without social cohesion as long as players play professionally and with commitment. Research has shown that trust is immensely important in increasing team cohesion and/or performance. In his study on challenges to virtual success, Kirkman (2002) indicated that trust is the bond that allows any kind of significant relationship to exist between people. Trust between members of a team is a key success to a cohesive team and cohesion.

Investigations into the influence of team composition on team performance, in terms of task-related attributes (for instance, personality traits, cognitive abilities) often assume this relation to be mediated by the strength (intensity) of the interpersonal relations (social cohesion) among team members. A number of continental studies conducted in Kenya have been done in soccer teams on factors that have an effect on teams' performance and their areas of focus including tactical and technical factors (Simiyu, 2005), lack of coaching programs and poor preparation for international competitions, lack of international visits to

gain experience, financial constraints, haphazard residential training, lack of professional players and poor state of sports administration (Versi, 1986).

However, little has been done locally in the context of psychological factors such as stress, personality and cohesion. The concept of team cohesion and how it can affect athletic performance was the main focus of the present study. Although there is scarcity of literature in Ethiopia on this issue, team cohesion can help in defining and contributing to team sports success or better performance. Previous studies (Carron, 1982) have addressed such issues as the development of cohesion in athletic teams; but the primary concern of the present study was with the cohesion-performance relationship. There was no previously reported empirical finding of study conducted to assess the level or the degree of cohesiveness and the extent of its contribution in enhancing the performance of U-20 football team of athlete Tirunesh Dibaba Sport Training Center that is situated in Asella town, central Ethiopia as far as the knowledge of the principal researcher was concerned. This study, therefore, sought to find out level of cohesiveness and the contribution of cohesion to enhancing team performance of U-20 football team of athlete Tirunesh Dibaba Sport Training Center operating in Asella town, central Ethiopia in National U-20 Football Premier League of 2018/19 season.

1.3. Basic Research Questions

The following basic research questions were raised and answered upon successful accomplishment of the study:

1. How well cohesive (task and social) is the U-20 football team of athlete Tirunesh Dibaba Sport Training Center, central Ethiopia in National U-20 Football Premier League of 2018/19 season?,
2. What is the performance in terms of win/loss record of the U-20 football team of athlete Tirunesh Dibaba Sport Training Center, central Ethiopia in National U-20 Football Premier League of 2018/19 season?, and
3. Is there a relationship between cohesion and performance of U-20 football team of athlete Tirunesh Dibaba Sport Training Center in National U-20 Football Premier League of 2018/19 season?

1.4. Objective of the Study

1.4.1. General Objective

The principal objective of this thesis was to assess the cohesiveness and contributions of cohesiveness in enhancing the performance in terms of win/loss record of the U-20 football team of athlete Tirunesh Dibaba Sport Training Center, central Ethiopia in National U-20 Football Premier League of 2018/19 season.

1.4.2. Specific Objectives

The following were the specific objectives of this thesis. Those were:

1. To determine the degree of cohesion (task and social) of the U-20 football team of athlete Tirunesh Dibaba Sport Training Center, central Ethiopia in National U-20 Football Premier League of 2018/19 season,
2. To determine the performance in terms of win/loss record of the U-20 football team of athlete Tirunesh Dibaba Sport Training Center, central Ethiopia in National U-20 Football Premier League of 2018/19 season, and
3. To determine whether there is a relationship between cohesion and performance of U-20 football team of athlete Tirunesh Dibaba Sport Training Center in National U-20 Football Premier League of 2018/19 season.

1.5. Significance of the Study

The findings of the study would enrich existing empirical literature on the major issues of the study. The findings of this study will provide more knowledge to team managers, coaches and/or sport psychologists on the significance of task and social cohesion and team performance. The team managers and coaches could utilize the findings of this study to develop team-building strategies to improve team cohesiveness. The findings of this study would probably help players to realize the contribution of cohesiveness to their team's success hence, strengthening their social skills and relations. Conversely, the findings are useful source of information to guide policy-makers on the influence of task and social cohesion to a team's performance. This guides policy-makers to plan for and adopt sound strategies in teams' management with an aim of improving performance.

There is scarcity of literature in the area of team cohesion and sports performance in Ethiopia. Hence, the findings of this study have added knowledge in this area. In addition, this study contributes knowledge for the purposes of cross-cultural comparisons on effects of team cohesion in basketball and other types of sports. The information obtained from the findings

may be important feedback to those handling basketball teams. It has also highlighted the significance of sports psychologists and psychological knowledge in guiding players towards achievement of optimal performance.

Moreover, they would contribute a lot towards designing and implementing evidence based intervention strategies and campaigns that address how the extent of performance and degree of cohesiveness of U-20 football team of athlete Tirunesh Dibaba Sport Training Center would be tackled in the specific study settings. Furthermore, it would generate baseline evidence that may be used by other researchers who want to make thorough and detailed investigation into the thematic issues of the thesis in the future.

1.6. Delimitation (Scope) of the Study

The study was delimited to U-20 football team of athlete Tirunesh Dibaba Sport Training Center's cohesion and contributions of cohesion in promoting the performance of that team in 2018/19 competition season. Besides, this research was conducted to examine whether there are relationships between the degree of cohesion and performance of U-20 football team. However, it didn't address the cohesion and performance of other sport teams that were still operating and found in the athlete Tirunesh Dibaba Sport Training Center. Also, other factors that could affect the degree of cohesion and performance of U-20 football team were not addressed and investigated by this thesis.

1.7. Limitations of the Study

Successful performance of a team is influenced by varied variables such as technical and tactical, preparation, personal and environmental factors but the researcher concentrated only on variables related to team' social and task cohesion. Also, there was limited control of other intervening variables such as motivation, personality, players' mood, leadership styles, facilities and equipment.

Insufficient time and budget constraints were other major encountered limitations of the study. In addition, the extent of reliability and accuracy of self-reported responses of the players for group environment questionnaire (GEQ) and team performance questionnaire (TPQ) in the National U-20 Football Premier League might be questionable. However, to overcome that limitation, the researcher tried to inform the study participants about the benefits of providing accurate and reliable responses for both types of questionnaires and the importance of the outcomes of the study for participants and other teams that found in the same sport training center and also in other centers.

1.8. Operational Definition of Terms

Athlete Tirunesh Dibaba Sport Training Center: is a sport training center that is funded and operated under the Federal Democratic Republic of Ethiopia's government which is named after the athlete Tirunesh Dibaba to acknowledge her contributions in the field of athletics sport.

Group cohesion: is a dynamic process where the group tends to remain together and united in the pursuit of its goal for the satisfaction of the affective needs of group members.

Group: Are a number of people or things that are located, gathered, or classed together. It is synonymous with the term team. Hence, it is used interchangeably in this study.

National U-20 Football Premier League: The Competition involving under 20 years old boys operating in various centers throughout the country in football tournaments in the year 2011 in Ethiopia.

Performance: i**s** the accomplishment of a given task measured against preset known standards of accuracy, completeness, cost and speed.

Social Cohesion: is how well players in a team get along with each other personally. In this study, social cohesion was based on the number of players in a team that were liked or disliked by each player in the same team; in other words Social Cohesion i**s** the level of friendship and mutual trust and support between team members.

Task Cohesion: refers to the perception of the basketball players in U-20 Ethiopian Football Teams Premier League in 2018/19 season in terms of playing, celebrating victories and accepting defeat as teams. Task Cohesion is also defined as the level of commitment to work together as a team to achieve common objectives.

Team cohesion: It focuses on how being a part of a group inferences performance as well as how psycho-social factor influence group behavior, group performance better and group member are most satisfied when they are cohesive that is, they stick together remain united in pursuing goals; also team cohesion refers to the tendency for a group to stick together and remain united in the pursuit of common goals like preparing for a tournament.

Team Performance: Wins and losses of U-20 Football team during the classic league 2018/19 season's competitions.

Team Size: refers to the total number of players in the teams in the classic league in the 2010 season.

Team: refers to groups of people who interact through interdependent tasks guided by a common purpose.

U-20 Football Team: It is the team that is formed from boys aged less than twenty years old and playing football in athlete Tirunesh Dibaba Sport Training Center in Asella town.

1.9. Organization of the Thesis

This thesis is organized into six chapters. The first chapter is the introductory part which includes the background of the study, statement of the problem, objective, significance, scope, the limitation and operational definitions of terms. The second chapter presents the review of literature relevant to the research topic. The third chapter discusses about research methodology and design. The fourth chapter presents the results of the study; and the fifth chapter discusses and interprets the results and major findings of the study. The last chapter deals with summaries of the study, drawn conclusion and suggested recommendations forwarded based on the limitations and weaknesses of the study. References and appendices are also the parts of this thesis.

CHAPTER TWO:

REVIEW OF RELATED LITERATURE

2.1. Definitions and Structure of Team, Cohesion and Performance

The terms ‘group’ and ‘team’ have been used interchangeably in the research literature, with the latter term more recently used, particularly by management consultants. It is also more frequently used in the organizational literature with the term ‘group’ used widely in psychology texts. Understanding the difference between the two terms and the characteristics of ‘groups’ versus ‘teams’, may provide some insight into why different dimensions of cohesion have been identified in different contexts.

A ‘group’ can be described as an informal collection of individuals (Moray 1994). The psychological group can be considered a collective characterized by a shared identity and who interact meaningfully. Individuals recognize the importance of group membership for realizing their individual goals, goals that will be complementary with those of other individuals. Individuals will also have loose role structures, and they will abide by the rules and norms considered acceptable in the group. They are not simply aggregates of individuals who happen to have collected together at a particular time point (e.g. to catch a bus) or who can be defined by particular attributes (e.g. gender, age). To be a group, individuals must have a sense of awareness of one another and have opportunities for interaction. Groups are not of any particular size, although it has been suggested that to enable frequent interactions, groups will contain approximately 12 or fewer individuals, but a minimum of two (Huczynski and Buchanan, 2007). A key attribute that defines groups is *interdependence*, i.e. at least one person influences or is influenced by others (Lewin, 1948). The level of interdependence however, will depend on the size of the group, for example, a group may be so large that interdependence becomes minimal (Forsyth, 1990).

It has been suggested that groups transition into teams as they mature to the performing stage described in Tuckman and Jensen’s (1977) developmental stages. This denotes the existence of a group-team continuum which would help to explain why the terms are used interchangeably. Many definitions of a team exist but one of the most frequently adopted has been proposed by Salas, Dickinson, Converse, and Tannenbaum (1992) describing teams as:

> *...a distinguishable set of two or more people who interact dynamically, interdependently towards a common and valued goal/objective/mission, who have each been assigned specific roles or function to perform, and who have a limited life span membership (p4).*

Fitting with the definitions of 'group' and 'team', the latter has a defined purpose and a common goal requiring collaborative working to achieve them. Cohesion is therefore likely to be of greater importance to teams than groups. Individuals will have complementary skills and knowledge (Mills, Blendell, Henderson, and Rodden, 1999). A mix of technical or functional expertise, problem-solving and decision making skills, and interpersonal skills are required in a team. Success and failure in the team is shared. How the two terms are distinguished however, does have implications for how research findings are interpreted and the generalizations that can be made from research studies.

This may have contributed to the lack of consistency in research findings in the cohesion literature. For the purpose of this research and in the interests of consistency, the term 'team' will be used. However, caution is applied in the use of the term in this research.

The use of the term 'group' will be limited to quotations or for referring to collectives that clearly do not possess the characteristics of teams as described in this section. Where this is unclear, the use of the term 'team' does not however, assume that conclusions drawn from previous research are relevant to 'teams'.

There is no equivocal definition of cohesion in the theoretical and empirical literature. Thus, an attempt is made to revisit the existing cohesion literature reviewing both the traditional unidimensional view and contemporary multidimensional view. The antecedents and consequences of cohesion along with the potential implications of cohesion are also discussed.

The contemporary view generally regards cohesion as a multidimensional structure. The relationships between the different dimensions have often not been clarified in previous research. It is also stated that there is now some emerging agreement that Carron et al.'s (1985) definition and conceptual model of cohesion provides a good foundation for understanding the multidimensional nature of cohesion across team contexts (Cota et al., 1995; Mudrack, 1989a, 1989b).

Carron et al. (1985) define cohesion as "a dynamic process reflected in the tendency for a group to stick together and remain united in the pursuit of instrumental objectives and/or the satisfaction of member affective needs" (p124). This definition reflects the task, social, individual and team aspects of cohesion identified independently by other researchers (e.g. Tziner, 1982a, 1982b) as important for understanding cohesion in many types of team.

Carron et al.'s (1985) definition is not just important because it reflects the consistently identified dimensions of cohesion, but it also captures the dynamic property of cohesion. They argue that cohesion is not a *trait* but a property of teams that changes over the lifecycle

of the team. As a ‘state’, an individual’s feelings and perceptions will change as a function of the situation or team context they are in at any given time; they will not endure over time (Marks, Mathieu, and Zaccaro, 2001). This is fundamental to understanding the nature of cohesion and how it should be measured. Discussion of both the antecedents and consequences of cohesion is not just important for reducing construct contamination but also for identifying appropriate variables that can be used to test the psychometric properties of the new measure. Although generally a positive team property, cohesion can have negative implications. Determining optimum levels of cohesion in teams is important for preventing negative outcomes.

The evolution of studies on cohesion indicates that the first systematic work on the topic was conducted by Festinger et al. (1950), who defined cohesiveness as “[...] the total field of forces which act on members to remain in the group.” This encompasses two aspects: attraction among the members and forms of control. Carron et al. (1985, p. 213) include social and task-related components, cohesion thus being [...] a dynamic process that reflects the intention of the group to stick together and remain united in pursuit of its instrumental objectives related to the task and/or for the satisfaction of members’ affective needs [...] and Tutko and Richards (1984) defined a cohesive group as the combination of people who think, feel, and act as a unit. Wolfe and Box (1987) concluded that cohesion acts as a social construct element and has historically been based on a tripod: the similarity between individuals, which is judged more in the social than in the intellectual realm; the morale of the group or level of motivation, perceived through sociometric measures, which provide for mutual peer nomination and least/most preferred co-worker selections; and the group’s basis to coordinate and control efforts, which is also based on the needs for authority or dominance. Convergent ideas are found in Robbins (2002), and Wagner (2006) highlights the importance of interaction between team members. Robbins (2002) evidences three aspects that influence cohesion: time spent together; the small size of the team, facilitating interaction; and external threats, creating greater alignment of members.

Rocco (2004) pointed out that initially, the concept of cohesion was a purely descriptive term. Several subsequent studies have found factors that affect group cohesion, including: the degree of compliance with the objectives proposed to the group; the interaction that the members establish in the group; antagonisms and intergroup conflicts; degree of proximity or cultural similarity; and the group’s previous success stories. Machado (2006) goes further and mentions cohesion as a complex, dynamic, and variable process over time, which does not

emerge suddenly, and is not permanent. Maintenance is required, which can be stimulated by all members and leaders.

According to Carron et al. (2002a), group cohesion has two components: the first is associated with the development and maintenance of interpersonal relationships generated by the social relationship among group members, and the second is linked to the task processes associated with the group's activity to achieve goals. This view describes group cohesion as having a multidimensional nature. Studies solely based on group attraction are inadequate to explain the multidimensional nature of cohesion in teams. Yukelson et al. (1984) concluded that, to assess group cohesion, the instruments should reflect not only the factors associated with goals and objectives that the group seeks to achieve, but also those related to the development and maintenance of positive interpersonal relationships, cohesion being a multidimensional factor.

The study conducted by Weinberg and Gould (2001) points out factors that influence group cohesion in sports teams, such as environmental, situational, or personal issues, as well as those referring to leadership and team styles, which represent a hierarchy going from the overall to the specific:

a) **Environmental factors**: considered the most general, they represent the normative forces that hold the group together. Examples include scholarships, age, proximity, or eligibility requirements;

b) **Personal factors:** extremely important variables in the study of cohesion on sport teams, they can affect the development of group cohesion when overlooked. The authors point out that these factors explain why team members participate and how they engage in the activities of the team;

c) **Leadership styles**: refers to the coach's interaction with team members and includes the leadership lifestyle and behavior that professionals exhibit and their relationship with their group. The leader plays a vital role in group cohesion through consistent and clear communication with the captain and the other members of the team, directing efforts to meet the objective and dividing the roles among team members;

d) **Team Factors:** refers to group task characteristics, such as individual or team sports, norms for group actions, desire for success, and team stability.

Cohesion is related to factors that actively affect team performance. The satisfaction of the individual in the group, the motivation to perform the tasks, the quality of the tasks, and

acceptance of the leader's role at the head of the group are factors that show the breadth of the topic and the complexity of measuring team cohesion.

Yukelson et al. (1984) reaffirm cohesion as a multidimensional process and portray the need for a more comprehensive measuring instrument. Following the multidimensional concepts of group cohesion, they developed a tool of 41 questions called Multidimensional Sport Cohesion Instrument (MSCI). The psychometric properties of this instrument were analyzed with the data coming from a sample of American basketball players. The final version of the study presented 22 items, measured on an 11-point Likert scale, to evaluate the subject of this article into four major dimensions: a) quality of teamwork; b) attraction to the group; c) unity of purpose; and d) valued roles. This instrument of 22 items for evaluation of sporting cohesion, which uses the principles of psychometrics, has been validated and approved as to its reliability and construct validity, with an alpha reliability coefficient of 0.93.

Cohesion was first formally defined by Festinger, Schachter, and Back (1950) as "the total field of forces which act on members to keep them on working in the group." Carron, Brawley and Widmeyer (1998) describe the concept as a dynamic process that addresses the inclination of a group to merge collectively and amalgamate due to the active purposes and also for the contentment of associate's emotional requirements. "Team unity" and "team chemistry" are both used to replace the term "cohesion" that is the main group variable (Carron, Burke ve Shapcott, 2009).

Cohesion was thought to be as an adhesive which holds team members together. The instruments were developed to measure the strength of the adhesive. Carron et al. (1985) developed the Group Environment Questionnaire (GEQ) to measure four manifestations of cohesion in sport teams: (1) individual attractions to the group-task (ATG-T), which indicates a member's feelings about his or her personal involvement with the group's task; (2) individual attractions to the group-social (ATG-S), a member's feelings about his or her personal social interactions with the group; (3) group integration-task (GI-T), a member's perceptions of the similarity and unity of the group as a whole around its tasks and goals; and group integration-social (GI-S), a member's perception of the similarity and closeness of the group as a social unit (Carron et al., 2002).

Numerous studies have shown a positive correlation between team cohesion and team success or good performance. For example, Carron et al. (2002) analyzed the relationships between task cohesion and team success and found a strong relationship between cohesion and team success. Cohesion is regarded as significant variable in team sports. Previous sport studies found relationships between cohesion and collective efficacy, (Heuzé, Raimbault, and

Fontayne, 2006) role involvement, (Eys and Carron, 2001) leadership, (Hardy, Eys, and Loughead, 2008) and communication (Sullivan and Feltz, 2003). Spink, Nickel, Wilson and Odonokon (2005) found that higher perceptions of cohesion are related to higher levels of satisfaction and leadership behaviors for athletes. Martin, Paradis, Eys and Evans (2013) found high cohesion in teams increases the team members' satisfaction.

2.2. Cohesion as a One-dimensional Construct

Early definitions of cohesion in particular, especially research conducted in the 1950s and 1960s, viewed cohesion as a unidimensional construct that can be defined by a single dimension. The definition provided by Festinger, Schachter, and Back (1950) influenced the early literature on cohesion and was one of the first widely accepted definitions. They defined cohesion as "the total field of forces which act on members to remain in the group" (p.164) and viewed the forces that contribute to cohesion as the attractiveness of the prestige of the team, attractiveness of the members of the team, attractiveness of the activities of the team, and the ability of the team to help its members achieve their goals.

'Attraction to the team' has been reflected in many subsequent definitions of cohesion. Seashore (1954) noted that members in a cohesive team feel attracted to the team and will be more resistant to leaving the team. Roark and Sharah (1989) argued that team cohesiveness can be understood by averaging individual attractions to the team. In the context of the relationship between cohesion and team performance, cohesion has been described as an interpersonal liking for fellow team members (Back, 1950; Schachter, 1952). Cartwright (1968) defined cohesion as "the degree to which the members of the group desire to remain in the group" (p91). Another classical definition defined a cohesive team as "one that sticks together – one whose members are 'bonded' to one another and the group as a whole" (Mudrack, 1989a, p.39). Cohesion has also been described as liking one another, identifying with one another, and feeling comfortable with one another (McIntyre and Salas, 1995). Team cohesiveness has been described as "a condition which allows meaningful self-exploration, giving and receiving of potent interpersonal feedback and a more general feeling of being understood, valued, and accepted" (Bednar et al., 1974, p157).

The variable 'attraction' has been considered an important contributor towards many team outcomes, including an increase in attendance (Yalom and Rand, 1966), willingness to participate in team discussions and self-exploration (Truax, 1961). However, there has been disagreement between researchers over whether attraction to the team and team cohesiveness are separate but related variables (Evans and Jarvis, 1980), or whether they are essentially the

same phenomenon (Cartwright and Zander, 1968; Frank, 1957). The definition as interpersonal attraction largely results from research conducted in small faceto-face teams where interaction is frequent and team members are physically co-located. Therefore, it is likely to apply less to larger teams or teams where face-to-face interaction in not always possible, but where a high level of cohesiveness still exists. This needs to be taken into consideration in developing a measure of cohesion for teams that display such characteristics.

Festinger et al.'s (1950) 'field of forces' definition of cohesion however, has been criticized by researchers (e.g. Carron, 1982; Carron et al., 1985; Gross and Martin, 1952a, 1952b; Mudrack, 1989a) for not specifically addressing what keeps teams together. In response to this, Gross and Martin (1952a) proposed an alternative definition of cohesion: "the resistance of a group to disruptive forces" (p.553), reflecting that in a crisis, a team will remain united depending on the nature of the bonds between its members. Research conducted by Brawley, Carron, and Widmeyer (1988) is one of the few studies to empirically test this definition. Due to factors such as ethical issues, their study did not directly test the impact of external threats on team members but instead asked respondents to list actions and events that hypothetically would be disruptive to the team. A similar, later definition was proposed by Piper, Marrache, Lacroix, Richardsen, and Jones (1983) describing cohesion as a "basic bond or uniting force" (p.95).

Given the disagreement over whether 'attraction to the team' is a related but separate construct to cohesion and the fairly vague definitions described above, perhaps the most useful unidimensional definitions are those that have been developed in specific team contexts. From a clinical perspective, cohesion has been defined as "group connectedness, demonstrated by working together toward a common therapeutic goal, constructive engagement around common themes, and openness to sharing personal material" (Budman, Soldz, Demby, Davis, and Merry, 1993, p.202). In the context of teams in organizations, and considered as relevant to industrial work groups, Goodman, Ravlin, and Schminke (1987) defined cohesion as "the commitment of group members to the group task" (p.149). This focus on task-based cohesion only however, may underrepresent the construct even in these types of team. For example, in some situations, members of the team may not be committed to the team task but are able to complete it because they perceive that it will be valuable to the team. In the family functioning literature, in which the family is viewed as a small group, cohesion has been defined as *"the emotional bonding members have with one another and the degree of individual autonomy a person experiences in the family system"* (Olson, Sprenkle, and Russell, 1979, p.5, italics in original). This definition developed by Olson et al.

(1979) viewed family functioning along the two dimensions of autonomy and cohesion. As this definition was considered to inappropriately combine two distinct concepts, Olson later amended the definition omitting 'degree of individual autonomy' (Olson, 1986, 1991; Olson, Russell, and Sprenkle, 1983; Thomas and Olson, 1993).

Taken alone, unidimensional definitions are likely to under represent cohesion, but this does not mean that they do not represent some of the dimensions that constitute cohesion. For example, Goodman et al.'s (1987) definition reflects task cohesion and operationalizes this as commitment to the task. This is only one possible operationalization of task cohesion but 'commitment' is one of the characteristics of a team described by Salas et al. (1992). Although, defined in a family context, affective or social aspects of cohesion have also been highlighted in unidimensional definitions of cohesion (Olson et al., 1979). Feelings of being valued and accepted (Bedner et al., 1974), and the ability of team members to remain united in a crisis (Gross and Martin, 1952a) also align with characteristics of organizational work teams.

2.3. Cohesion as a Multidimensional Construct

Carron et al. (1985) provide the only multidimensional conceptual model of cohesion that has received some endorsement by other researchers, particularly Mudrack (1989a, 1989b) and Cota et al. (1995), as a good foundation for instilling consistency in its definition. This provides a fundamental move forward in cohesion research since these researchers have also been amongst those that have criticized the cohesion literature for being "dominated by confusion, inconsistency and almost inexcusable sloppiness with regard to defining the construct" (Mudrack, 1989a, p45). Carron et al.'s (1985) model is based on Carron's (1982) definition of cohesion stated in the introduction to this chapter. For clarity, and ease of reference it is restated here. Carron (1982) defined cohesion as "a dynamic process reflected in the tendency for a group to stick together and remain united in the pursuit of instrumental objectives and/or the satisfaction of member affective needs" (p.124). Carron (1980) also viewed cohesion as comprising interpersonal working relationships, the success attained by the team and personal forces that attract members to the team. Personal factors or 'motivational forces' (Bass, 1963) that contribute to a team's cohesiveness involve a desire to remain in the team for ego enhancements, the leadership opportunities that it may provide, or due to an attraction to fellow team members.

Carron's (1982) definition of cohesion led to the development of their conceptual model (Carron et al., 1985) to capture the interrelationship between the task, social, individual and team aspects of cohesion captured in the definition. The model is presented in Figure 1:

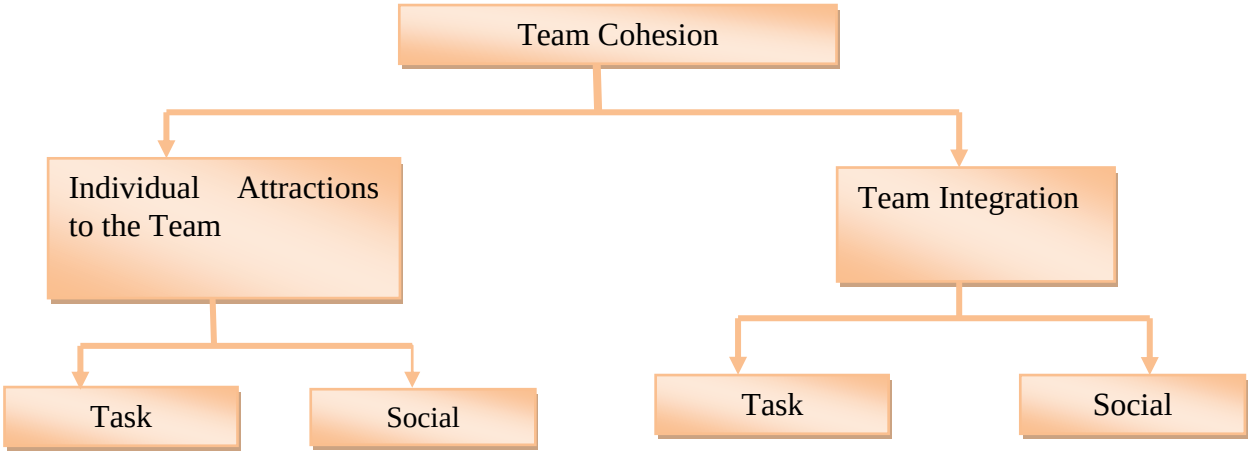

Figure 1: Carron et al.'s (1985) conceptual model of cohesion

They view the major variance in team cohesion as due to four dimensions: individual attractions to the group-task (ATG-T), individual attractions to the group-social (ATG-S), group integration-task (GI-T) and group integration-social (GI-S). These are defined by Carron et al. (2002a) as follows (p10):

- ATG-T: "Individual team member's feelings about his or her personal involvement with the group's task, productivity, and goals and objectives".
- ATG-S: "Individual team member's feelings about his or her personal acceptance with social interactions with the group".
- GI-T: "Individual team member's feelings about the similarity, closeness, and bonding within the team as a whole and around the group's task".
- GI-S: "Individual team member's feelings about the similarity, closeness, and bonding within the team as a whole and around the group as a social unit".

This view was based on the following fundamental assumptions:

1. Cohesion, as a team property, can be assessed through the perceptions of individual team members (fitting with Lewin's (1935) early notion of cohesion). This is based on the following five propositions. Firstly that a team has clearly observable properties, for example organizational structure and role and status relationships. Secondly, members of the team experience the social situation of their team, are socialized into it and as a result, develop a set of beliefs about it. Thirdly, the set of beliefs that are formed by

team members are similar to other social cognitions in that they are a product of the members' selective processing and their own personal integration/perceptions of team-related information. Fourthly, team members' perception of the team as a whole provides a reasonable estimate of aspects of unity. Finally, social cognitions can be measured. It is therefore not a construct that can be measured by external observers such as managers (Chiocchio and Essiembre, 2009).

2. Team members develop perceptions of the level of unity/bonding within the team as a whole (i.e. perceptions formed in terms of 'we' and 'us') as well as the way the team satisfies their personal needs and objectives (i.e. perceptions formed in terms of 'my', 'I', and 'me').
3. Team members perceptions of cohesion within the team as a whole and of the team as a forum for the satisfaction of personal needs and objectives will be related to the team tasks (i.e. task cohesion), and the social relationships within the team (i.e. social cohesion).

Larkin (1972) describes cohesive teams as those in which members are bound emotionally to the task as well as to each other, where greater stability is ensured and cooperative diversity is enhanced. Eisman (1959) empirically investigated the dimensionality of cohesion through examining the intercorrelations among five measures of cohesion reflecting "the attraction of a group for its members" (p.183). The measures were chosen either because they were widely used among researchers (e.g. a sociometric measure instructing subjects to list their best friends) or that their conceptual basis was developed from Festinger et al.'s (1950) model (e.g. the average number of reasons that members gave for belonging to their team). Eisman's (1959) study used members from 14 student teams and used individual member's response as the unit of analysis. However, the magnitude of the intercorrelations was found to be too small to be consistent with the theoretical viewpoint. Hagstrom and Selvin (1965) conducted a similar empirical study conducting a factor analysis 2 of 19 indexes of cohesion, instead using the team as the unit of analysis as opposed to the individual. Results of the factor analysis indicated that two factors corresponding to Festinger et al.'s (1950) model contributes to cohesion – social satisfaction and sociometric cohesion. Stokes (1983a, 1983b) identified risk taking, instrumental value of the team and attraction of one team member to another as elements of cohesion and empirically demonstrated these as independent from one another. Newcomb, Turner, and Converse (1965) argued that there are three major dimensions of cohesion, terming them mutual attraction, structural integration and normativeness. Feldman (1968) identified similar dimensions - interpersonal integration

(representing liking or attraction), functional integration (co-ordinated or interdependent task behavior) and normative integration (shared beliefs or normative consensus).

Multidimensional definitions of cohesion offer a more comprehensive understanding of cohesion as a complex psychological construct. A critical examination of both unidimensional and multidimensional definitions of cohesion led Cota et al. (1995) to propose that cohesion is a multidimensional construct that has primary and secondary dimensions. Their work was motivated by studies that showed that aspects of cohesion differed across teams. For example, Stokes (1983a, 1983b) found that the relevance of the three dimensions of cohesion he identified - risk taking, instrumental value of the team, and attraction, differed across types of therapy groups.

2.4. Antecedents and Consequences of Cohesion

Identifying the antecedents (i.e. causes) and consequences of cohesion is important for developing a measure of cohesion that is free from construct contamination and for designing studies to test the divergent validity of the new measure. For example, items constructed for the new measure of cohesion in organizational work teams found to correlate more highly with measures of related but distinct concepts, that are in themselves reliable and valid measures of that construct should be removed from the measure.

2.4.1. Antecedents

Relatively little of the research literature that has examined the relationship between cohesion and other variables has focused on the antecedents of cohesion. Casey-Campbell and Martens (2009) make two suggestions why this is the case. Firstly, they suggest that one reason for this is due to Gross and Martin's (1952a) change in emphasis of Festinger et al.'s (1950) definition from the "*total field of forces* which act on group members to remain in the group" (p.164 emphasis added) to the "*resultant field of forces"*.

The second reason they provide is due to the fact that most studies measuring the relationship between cohesion and other variables only reflect more mature teams where a certain level of interaction between team members has already taken place. This has supported research on the consequences of cohesion but made it difficult for researchers to identify variables that affect levels of cohesion. This has implications for developing a measure of team cohesion. It makes it difficult to identify clear antecedents of cohesion which can be employed in a validity study to determine the sensitivity of a new measure to expected variations in levels of cohesion. Those that have been suggested which affect levels of cohesion include: environmental factors such as physical proximity and contractual responsibilities; team

factors such as team size (Carron, Eys, and Burke, 2007) and type of task and role; individual factors such as personality (e.g. extraversion) and demographic characteristics (e.g. gender); leadership factors such as leadership style (Carron, 1982; Carron et al., 2007). Perhaps in an organizational work team setting perceptions of cohesion may differ depending on whether the individual is a team member or team leader. Carron et al. (2002b) found that gender moderates the relationship between cohesion and team performance, with the association greater in female sports teams. Levels of cohesion have also been found to differ depending on type of sport (Carron et al., 2007). It may also be the case that levels of cohesion differ depending on type of organization. An adequate understanding of the individual and team characteristics that cause differences in perceptions of cohesion, such as those described above, is also important for the development of norms to properly understand the meaning of cohesion scores derived from a measure.

Although conducted in a sports team context, Widmeyer, Brawley, and Carron (1990) research found that task cohesion was greatest in teams of size three and social cohesion was most optimal in team sizes of six. Since task work requires co-ordination and collaboration, it is unsurprising that smaller teams achieve higher levels of task cohesion.

Since this is not the only study to have identified team size as a variable which affects levels of cohesion, it appears to provide a good variable against which to test the sensitivity of the new measure of team cohesion. In terms of leadership style, transformation leadership (i.e. where change envisioned by the leader occurs only with the commitment of the team) has been found to have a positive relationship with laboratory teams (Hoyt and Blascovich, 2003), light infantry platoons (Bass, Jung, Avolio, and Berson, 2003), fire rescue personnel (Pillai and William, 2004) and Korean workgroups (Jung and Sosik, 2002). In a sports team context a democratic leadership style (i.e. where the leader involves team members in decision-making activities) has been found to lead to higher levels of team cohesion over an autocratic style (i.e. one in which the leader makes all decisions with no delegation) (Gill and Williams, 2008). Role aspects refer to role clarity (how well the role is defined), role acceptance (the extent to which team members comply with role requirements) and role performance (how well team members conduct their role responsibilities). The role aspect shown to have most influence on cohesion is role acceptance (Dawe and Carron, 1990). Social loafing (i.e. when one or more of the team members become idle within the team, relying on the efforts of others) has also been shown to influence cohesion where increased social loafing results in lower team cohesion (Nelson and Quick, 2007).

Work team diversity (i.e. differences among individuals) has also been identified as an antecedent of cohesion (Harrison et al., 1998; van Knippenberg and Schippers (2007). Research results on the effect of diversity on cohesion are mixed. However, Harrison et al. (1998) suggest that this is in part due to only the more easily measurable overt demographic differences being studied (such as gender and age). In their study they found that over time, as team members interact more frequently, demographic or surface level dimensions as they refer to them become less important on the cohesiveness of the team than attitudinal or deep-level dissimilarities. This is supported by other previous research since Widmeyer, Brawley, and Carron (1992) found that social and racial characteristics had only a minimal effect on cohesion with a greater impact reported from personality and attitudes, such as self-disclosure (Stokes et al., 1983) and satisfaction with the team (Williams and Widmeyer, 1991).

Cultural variables of a team have also been found to determine the degree of team cohesion. Actual team culture (i.e. the content, meanings and topics of interactions), ideal team culture (the norms, values or behaviors that team members think will enhance performance and satisfaction) and the culture gap (i.e. the difference between actual and desired beliefs and norms) have been found to have a positive influence on cohesion (Sanchez and Yurrebaso, 2009). Cohesion has also been found to be related to gender issues, discussion methods, conflict and resolution, and team structure (Cragan and Wright, 1990). Friendliness, dominance, and acceptance of authority have also been found to have a positive impact on team cohesion (Copeland and Straub, 1995).

2.4.2. Consequences

Much of the literature on team cohesion has focused on cohesion and its consequences, particularly studies that have been conducted in a work team context, despite the lack of adequate measures of the construct. Cohesion has been most frequently linked to team performance and productivity but also other variables such as trust and individual wellbeing. The fact that cohesion has been found to be positively related to important team outcomes is partly responsible for the continued interest in the construct. Research indicates that highly cohesive teams achieve their output goals more often than those which are less cohesive (Haslam, 1991; Brannick, Roach and Salas, 1993) and have members that show more frequent and effective co-ordination (Tannenbaum, Beard, and Salas, 1992). It is also generally believed that cohesive task-groups are more productive, both in laboratory and applied settings. However, it has been argued that there is a large discrepancy between what is believed to be the case and the existing evidence available on cohesion (Druckman and

Swets, 1988). Empirical research reports mixed results. Hare (1976) cited 14 studies indicating a positive relationship between cohesion and performance. Lott and Lott (1965) reported 20 studies showing a positive relationship, and 15 studies showing a zero or negative relationship. Stodgill (1972) reported 12 studies indicating a positive relationship and 20 supporting no association between cohesion and team performance. Nieva, Fleishman, and Rieck (1978) cited eight studies showing a positive relationship and six reporting no effect or a negative effect. Strupp and Hausman (1953) found a positive correlation between cohesiveness and the productivity of aircraft maintenance crews. In a three-person land surveying task, Terborg, Castore, and DeNinno (1976) found that liking had no effect on team performance. A meta-analysis of 66 studies was conducted by Mullen and Copper (1994) examining the effects of team cohesiveness on performance. Although some of the studies involved groups that would not qualify as teams, a positive relationship between cohesion and performance was found. This was more evident in smaller teams and found to be caused by team members' commitment to the task more than interpersonal attraction or team pride.

Studies also exist that indicate that cohesiveness may even degrade team performance. For example, Weick and Penner (1969) found that in laboratory teams, interpersonal attraction inversely related to performance. More recently Chiocchio and Essiembre (2007) found that in project teams the nature of the relationship between cohesion and performance depends on the type of team and type of performance measure used, i.e. either behavioral or self-report measures. The latter tend to result in a stronger relationship between cohesion and performance being identified, perhaps because of common method bias. Failure of meta-analytic studies to show a clear relationship between cohesion and team performance is also likely to, in part, be due to different operationalizations of cohesion used in the studies. Improved measurement of cohesion is important for supporting a clearer understanding of the consequences of cohesion.

Due to the inconsistency of the research examining the relationship between cohesion and team performance, research turned to identifying moderator variables that, in part, contribute to the relationship between cohesion and performance and determine the direction of cohesion effects on performance. Cohesion has been shown to be positively related to performance when teams establish high performance goals and norms that encourage productivity, but negatively related to performance when low performance goals and norms for productivity are established (Schachter, Ellertson, McBride, and Gregory, 1951; Seashore, 1954). The relationship is illustrated in Figure 2:

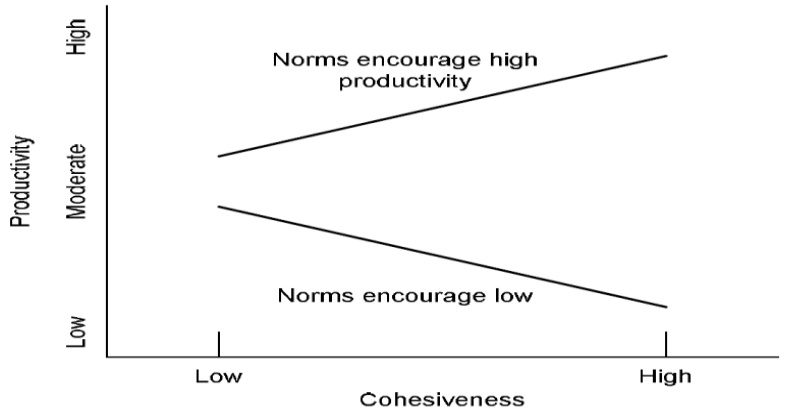

Figure 2: The cohesiveness/productivity relationship (Forsyth, 1990).

Stodgill (1972) and Greene (1989) argued that team drive, defined by Stodgill as "the intensity with which members invest expectation and energy on behalf of the group" (p.27), has a moderating effect on the cohesion-performance relationship. They found that cohesion only has a positive effect on performance when there is a high group drive.

Leadership style has also been found to have an effect on the relationship between team cohesion and team performance. For example, in a military context, Tziner and Vardi (1983) reported that the performance of Army tank crews was highest when (a) there was high cohesion within the team and the leadership style reflected both a task and people orientation, and (b) when there was low team cohesion within the team and the leadership style reflected a people orientated style. This shows that team performance can still be high even when there is low cohesion in the team.

Studies show that the relationship between cohesion and performance may also depend on the specific nature of the cohesiveness. Task cohesion has been found to be most closely related to work performance than social cohesion (Mullen and Copper, 1994; Zaccaro and Lowe, 1988; Zaccaro, 1991; Chang and Bordia, 2001). Zaccaro and Lowe (1988) found that task-cohesion is positively related to performance on an additive task (where individuals perform the same job and performance is the sum of individual efforts (Steiner, (1972)), but interpersonal cohesion had a negative effect. Zaccaro and McCoy (1988) found that performance scores were highest in teams that had both high levels of task and interpersonal cohesion. However, they also found that there was no difference in performance effectiveness between teams that were high on one type of cohesion and low on the other, and teams that were low on both. Zaccaro (1991) found that task cohesion and interpersonal cohesion had different effects on individual performance and absenteeism in student cadet groups. Despite the mixed results obtained on the relationship between cohesion and performance, the most

research has been conducted on this variable, including how it differentially relates to different dimensions of cohesion.

This makes 'team performance' one of the most appropriate consequence variables to validate a new measure of cohesion against. Cohesion is not the only factor that influences work team performance. Other factors include team composition, the nature of team goals and leadership aspects (Guzzo and Dickson, 1996).

Other consequences of cohesion include length of membership within the team, cooperation and participation (Casey-Campbell and Martens, 2009). Team cohesion can also increase job satisfaction (Nelson and Quick, 2007). Roark and Sharah (1989) found a strong correlation between team cohesiveness and empathy, self-disclosure, acceptance and trust. They argued not only that cohesion could lead to an increase in empathy, self-disclosure, acceptance and trust, but also that an increase in these factors could lead to an increase in cohesion. They also found that the different types of teams have different levels of cohesiveness. Amongst the teams that they studied were personal growth groups and psychotherapy groups. Cohesive teams have also been found to report more positive self-esteem, increased levels of security and lower levels of anxiety (Myers, 1962; Pepitone and Reichling, 1955).

2.5. The Implications of Cohesion

Cohesion has been found to be primarily a positive team attribute and this is why research on cohesion can facilitate understanding of why some teams function effectively and others do not. However, cohesion can also have some negative implications. It is possible that too much cohesion can result in an inability for teams to adapt to the environment. The cohesiveness of teams is threatened by conflicts such as goal conflicts and domination of subgroups within the team. Uniformity in norms and perceptions may result in routine behaviors being developed for interacting with one another and the environment which may not fit with changes in the environment (Klein, 2000). Without appropriate integration into the larger organization, teams may develop norms and goals of their own that will undermine those of the larger organization of which they are part. High levels of cohesion may not always result in more effective performance, but instead dysfunctional processes such as groupthink and risky shift effects (Sundstrom, De Meuse, and Futrell, 1990). However, without a minimum level of cohesion a team would drift apart (Forsyth, 1990).

Group think has been defined as:

> *a quick and easy way to refer to a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when members' strivings for*

> *unanimity override their motivation to realistically appraise alternative courses of action…Groupthink refers to a deterioration of mental efficiency, reality testing, and moral judgment that results from group pressures (Janis, 1972, p.9).*

Unlike the performance research, the groupthink hypothesis argues that too much cohesion in a team is detrimental to the free-thinking of team members and therefore impacts decision-making. Janis (1977) argues that a cohesive team displays eight groupthink symptoms: illusions of invulnerability, belief in inherent team morality, rationalization, isolationism, self-censorship, direct pressure, mind guards and unanimity illusions. He argues that a "high degree of group cohesiveness is conducive to a high frequency of symptoms of groupthink which, in turn, are conducive to a high frequency of defects in decision-making" (Janis, 1972, p.199). Members in highly cohesive teams are less likely to disagree with other members and will try to avoid arguing with them.

Disagreements in highly cohesive teams are more likely to lead to being ostracized from the team than in non-cohesive teams (Cartwright, 1968; Schachter, 1951). Isolation, leadership and decisional stress can also result in groupthink.

Team members tend to be disliked and assigned undesirable roles if they go against the consensus of the team (Schachter, 1951). Cohesiveness can also decrease the quality of team performance, increase hostility, scapegoating and interpersonal rejection (French, 1941; Pepitone and Reichling, 1955). A team will exert direct interpersonal influence, including persuasion, bargains, promises and even the threat of rejection in an attempt to turn a nonconformist into a conformist (Forsyth, 1990). Organizations can be viewed as consisting of a number of smaller teams. Thus, it is likely that in this view, teams will compete for resources in order to achieve their own objectives (Sapolsky, 1972). This competitive element between teams provides one reason why team members will overvalue their own team and devalue other teams (Le Vine and Campbell, 1972). Individuals who have membership of more than one team may serve to reduce this divide between teams (Likert, 1961; Heiskanen, 1967).

2.6. Review of Literature on Team Cohesion and Sports Performance

Whilst there seems to be a significant relationship between cohesion and performance in sports, the subject has been researched most extensively within the fields of management, leadership and psychology. Many credible studies exist in academia, with distinct and conflicting conclusions emerging on the subject. On one hand, there are some expert authorities those who believe that there is insufficient evidence to suggest that team

cohesiveness and achievement tend to be positively related. Many theorists however, conclude that cohesion amongst team members tends to promote productivity (Cox, 1990), which can be directly related to positive performance outcomes. Above all, there is also a selected team of personnel that promotes mixed and inconclusive stance towards the relation of team cohesion and performance. In the final analysis, however, evidence has accumulated to suggest that high levels of team cohesion can occasionally detract from performance, quality and productivity. In the same vein, highly cohesive groups are often more enjoyable to be part of; but potentially less productive (Seppo and Hatfield, 1986), the overwhelming evidence of research and personal experience indicates that, in general, a positive correlation exists between cohesion and performance. And this has always been an enduring fascination among coaches and sport researchers as well as fans. Indeed, some of the studies reviewed indicate a positive relationship between team cohesion and performance.

One of the earliest studies supporting this relationship was conducted by Stogdill (1987) who examined the degree of team cohesion and the number of yards gained on each offensive play for the Ohio State Buckeyes football team. The degree of cohesion was rated by eight high school coaches who sat in the stands and quantified the level of team coordination in terms of a subjective 9-point rating scale. The level of coordination was defined as the degree of complementary and coordination appeared to be analogous to the teamwork item found on the Sport Cohesiveness Questionnaire. Stogdill (1987) concluded from these measurements that team cohesion and performance (i.e. yards gained) were related under conditions of high drive. However, this result does not mean that team cohesion *caused* high levels of performance but that the two variables were related. Stogdill's study did not clearly indicate the relationship between team cohesion and performance. However, the coordination measure of team cohesion appeared to be more of measure of performance than its cohesion.

Although most of these studies have examined the effect of performance out-comes upon athlete's perceptions of team cohesion at the end of the season, Ruder and Gill (1982) demonstrated the effect of single game outcomes in both intramural and intercollegiate women's volleyball teams upon team cohesion. The study showed that team cohesion is not static and phenomenally stable but seems to change throughout the season. The study further showed that winning teams had a rise in group's cohesion following the game, while losing teams suffered a decline. The transitory effect of game outcome on team cohesion was much more pronounced for the intramural teams than the intercollegiate teams. The latter seemed to portray a greater degree of stability for this team attribute. Even though, sports psychology researchers have shown a relationship proceeding from cohesion to performance and from

performance to cohesion. (Peterson and Martens, 1997; Gill, 1986) states that, the directional influence seems to proceed to a greater degree from performance to later cohesion. Indeed, most studies by (Cox, 1990; Seppo and Hatfield, 1986, Stogdil, 1987) have shown more of an effect of performance upon later cohesion rather than vice versa. But from another perspective, it would seem desirable to determine whether the effect of cohesion has a significant effect upon later performance. Consequently, agreement among team players is an important component for team sports because it can influence a team's collective effort, their persistence in tough situations or defeat, and is a characteristic often observed in successful teams (Bandura, 1997). Some psychologists have consistently demonstrated that collective efficacy has positive effects on sport performance (Greenlees et al., 1999; Watson et al., 2001). The key aspects comprising collective efficacy are shared beliefs among the team, coordinative capabilities between members, collective resources for task success, and situational specificity of demands (Zaccaro et al., 1995). For collective efficacy to be present within a team, these key elements should be prevalent.

Following these suggestions, some studies have examined the relationship between these two constructs in the group sports. Paskevich et al. (1999) investigated the cohesion collective efficacy relationship in university and club volleyball teams. Results showed the positive relationships between task cohesion and collective efficacy. The positive relationship between task cohesion and collective efficacy was also supported by another study involving rugby-union teams. Kozub and McDonnell, (2000) found that task cohesion was positively associated to collective efficacy. They also noted that social dimension of cohesion did not add significantly to associated collective efficacy. In line with Kozub and McDonnell's (2000) results, Heuze et al. (2006) found athletes' perceptions of task cohesion were positively related with their perceptions of collective efficacy, although another positive relationship was found between social dimension of cohesion and collective efficacy. Ronayne (2004) also found a significant relationship between two dimensions of group cohesion (task and social cohesion) and collective efficacy at the early season and especially at the late season measurement. Empirical research has indicated that high group cohesion associated with successful sport performance are related in a number of sports including basketball (Carron et al., 2002), soccer (Murray, 2006), and baseball (Boone et al., 1997). Gardner et al., (1996) showed that group cohesion is hypothesized to positively influence performance and success. Carron et al., (2002) demonstrated a strong positive relationship between cohesion and team success. The results showed that there were no differences

between the cohesion-to-success and the success-to-cohesion relationship. Grieve et.al (2000) found that performance has more impact on cohesion than cohesion has on performance.

Fox (1984), found no significant relationship between cohesion and success, and also indicated that there is a conflicting relationship between cohesion and success, and those both positive and negative relationships were found. In this study, there was a significant relationship between team cohesion and performance. In the teams where team cohesion was high within groups, recorded more wins than those with less team cohesion within the group. Therefore, social and task cohesion within players of a team positively affected performance of the teams that participated in the National Classic League in Kenya 2010 Season. On the other hand, previous studies indicated that collective efficacy could influence the team performance. Hodges and Carrons' (1992) findings showed that, following failure, groups high in collective efficacy increased their efforts and performance; whereas groups low in collective efficacy showed deterioration in performance. Lirgg et al., (1994) and Davis (1996) investigated the relationship between collective efficacy and performance, and found that collective efficacy was positively correlated with group performance. Similarly, Spink's (1990) study of elite volleyball teams demonstrated that high efficacy teams performed significantly better in a competitive tournament than did teams with low levels of collective efficacy. Therefore, within the area of team sport, both collective efficacy and group cohesion would appear to share some commonality in influencing sport performance on numerous occasions in the past.

All in all, cohesion, in the context of teams, is all about the joining together of individuals to form a united and cooperative whole. Cohesion is an overall measure of group togetherness, and is based on three key factors: interpersonal attraction, defined as the tendency of one person to evaluate another person in a consistently positive manner; individual commitment, towards the collective and its objectives/goals; and feelings of personal satisfaction and pride, based upon the perceived achievements and/or opportunities derived from membership. If all three of these factors are found to be abundant within the majority of team members, the team can be considered relatively cohesive. Performance can be defined as a measure of the effectiveness and efficiency of a given team, and its individual members, in pursuing predetermined objectives and goals. A team winning more matches is likely to have greater social and task cohesion between and within groups. A study by Wisel (1994) on steps to success in Basketball revealed that one great measure of a team composition is the diversity of team members and evaluated two groups, one group had similarities in age, race, sex, academic standards and backgrounds. Findings from this group showed that there was

heightened team cohesion thus excellent performance. The other group differed in terms of age, race, academic standards, backgrounds but same sex; results indicated low cohesion and strain in good performance. This was a good indicator that homogeneity in a team was a key to improved team cohesion hence successful performance.

According to Davis (1996), the size of a team dictates the number of coaches assigned to it. It is difficult to promote team cohesion with large number of players in a team due to the diversity in skill levels. The coach will require more time to train and assess to ascertain the abilities of each player. Consequently, in coaching sports skill, a smaller number will ease the extent of output from the coach therefore cohesion develops more quickly in small groups since there is minimal room for disintegration. It's also easier to attain stability, learn and manage behavior patterns, organize team building activities and or reduce loading (the tendency for individuals to lessen their effort when they are a part of a group). The improved cohesion leads to successful performance. This study, therefore, investigated the effect of team size on team cohesion within the basketball teams in the National Classic League in Kenya 2010 Season. A study by Lencioni (2005) on the five dysfunctions of a team, suggests that the initial stages of building strong team cohesion are team members sharing their background details to show homogeneity. This sharing is a step towards allowing themselves become vulnerable to each other and stem up trust amongst the group. However, this study was carried out in San Francisco. There was need to investigate the effects of homogeneity in the Basketball Teams National Classic League in Kenya 2010 Season. Criticisms are often made that performance tends to be measured chiefly by results, with little concern for the internal processes of teams and other less tangible, but potentially important outcomes. This point notwithstanding, the link between performance and results is both logical and practical when we consider that the reason we form teams in the first place is because we wish to achieve certain objectives and goals. To take a negotiated position on the matter, while team process is indeed of interest, and one could well argue that analysis of performance should involve greater attention to internal team processes, it is the end results that should, and inevitably do, prove the final and overriding measure of success or failure. Ruder and Gill (1982) studied the effect of preseason cohesiveness upon performance measures, i.e. the win-loss record in 3-main intramural basketball teams by means of the Sport Cohesiveness Questionnaire. In addition to the formation of male and female teams, the authors grouped the teams into three ability levels according to a pre-season standardized basketball skills test. As such, the researchers were able to examine whether the cohesion-performance relationship differed by ability level i.e. good, average and poor and by gender. They hypothesized that

the higher ability groupings might evidence a stronger relationship between team cohesiveness and performance. Similarly, the lesser ability teams might be more stable than the lesser ability groups and it was believed that these teams might be more sensitive to the social team factor.

Research study by Gaertner (1992) examined the effect that a common group or team identity had on positive consequences on performance within a co-acting sport (football) team. The survey study used ninety-four high school football players from four eastern regional schools that measured strength of identification with the team as a whole, as offensive versus defensive units, or as individual players. Results from the findings revealed that a single team unity factor that predicted membership in both offensive and defensive unit construct indicated that players on winning teams (as determined by season win-loss record) emphasized team unity more than players on teams with losing records. Implications for the applicability of team identification to previous notions of team cohesion are discussed. This idea was used to determine the effect of homogeneity as a factor in the extent of task and team cohesion and performance in the National Classic League in Kenya 2010 Season. In another study, Carron, Bry and Eys (2003) examined the relationship between task cohesion and team success in elite basketball and football teams, measuring just the group integration task and group attraction to task categories of cohesion from the Group Environment Questionnaire (GEQ). Each member of the 18 basketball and 9 football teams responded to the items from the questionnaires and after the end of their regular season, they ranked each response from 1 (strongly disagree) to 9 (strongly agree). The key findings were as follows:

(i) The mean team cohesion scores for basketball teams were 6.05 for group integration task and 6.11 for attraction to group task. For football teams, the mean scores were 6.33 and 7.04.

(ii) Scores in both categories were highly correlated with team success for both sports, success being defined as match results over the season, excluding play-offs. The teams with the highest „team cohesion‟ scores had the best season won- loss percentage records. The study offers clear evidence that real-world sport teams benefit from high levels of task cohesion. The strength of the relationship between cohesion, as measured by the task categories of the GEQ, and team success as measured by the win: loss record was higher and the researchers believed that this was because they focused on task cohesion using the GEQ. The researchers integrated individual scores to produce a team cohesion score, and then related these scores to an indisputable measure of team success. Research has showed that team cohesion and athletic performance is associated (Wisel, 1994). However, this established association does not mean that a causal relationship between the two variables

can be assumed. To have a true *test of causality*, one would have to manipulate team cohesion experimentally and then observe the systematic changes in team success. Experimental manipulation of team cohesion would imply an actual intervention on the part of investigators to weaken cohesion in some teams and strengthen it in others. Most of these studies have been conducted from the West and it is worthwhile to conduct a study in Kenya. Interestingly, research into cohesion using the Group Environmental Questionnaire has suggested that "task" cohesion is more important for team success than "social" cohesion. This could explain why it is possible for team mates to dislike each other and still win (Carron et al., 1982). Most coaches and athletes prefer team mates to like each other, but it appears that as long as they are completely focused on their common task and share the same goals and beliefs, success is possible even without social cohesion. Another example of this principle at work is the Chicago Bulls which dominated the NBA in the 1980s: the team members allegedly didn't speak to each other off court, but practiced and competed together with 100% professionalism and commitment and maintained an excellent performance (Carron et al., 1982).

An organization's reward system in acknowledging good performance may increase team cohesion (Kirkman, 2002). Team members must be motivated to use the knowledge and skills to achieve shared goals. Other forms of motivating players can create conditions to avoid problems such as social disparities, joy riders, and reduced sense of self-pity or praise. In the absence of such problems, there is strong team bond hence, improved team cohesion.

2.7. Summary of Reviewed Literature

Following decades of research, the structure of cohesion is now regarded as multidimensional in structure. There is also now some agreement that cohesion consists of the task, social, individual and team dimensions identified in Carron et al.'s (1985) conceptual model, as these have been consistently identified across different types of teams. This conceptual model has been widely validated in a sports team context. Cohesion is also regarded as a dynamic construct that changes over time as teams develop and mature. As such, the salience of the different dimensions of cohesion will change over time as too will its relationship with other variables (e.g. team performance). However, there was no previously reported study done to investigate the thematic issues of the thesis at local, regional and national levels using the GEQ of cohesion assessment and TPQ to examine the perform of U-20 football teams as well as evaluated the relationship between cohesion and performance of U-20 football teams in general, and in the specific study settings in particular.

Therefore, this study aimed at assessing or investigating the degree of cohesion and the contribution of identified level of cohesion towards enhancing the performance of U-20 Football Team of the athlete Tirunesh Dibaba Sport Training Center in the National U-20 Football Teams Premier League in 2018/19 season.

2.8. Conceptual Framework of the Study

This study adopted the model of cohesion developed by Carron et al., (1985) by incorporating team cohesion contribution to enhancing team performance. These authors developed an instrument known as the Group Environment Questionnaire (GEQ) that was effective in determining the effect of working as a social group than individual to performance. The model of cohesion identifies four key contributing factors that interact to facilitate social or task cohesion that in turn contribute or enhance team performance. The four key factors contributing to cohesion are environmental, personal, team and leadership factors. The factors described in Figure 3 are the major determinants of the level of team cohesion. Team task would increase the desire for group to succeed and team stability. Environmental factors relate to leadership and personal factors lead to increased team cohesion thus, successful performance. Personal factors including affiliation, motivation and satisfaction increase the likelihood of task completion in players. With such personal factors, the players shall be readily predisposed to enhance team factors. Hence, the team factors of desire for success, group orientation, ability and stability, will increase group's task completion, hence group success. Nevertheless, leadership factors too come in to blend on the personal and team factors. The leadership behaviors and styles including coach-team and coach–athlete relationship will determine social and task completion hence team's success. Thus, these main factors amount to team cohesion hence team's overall success. Task- and social-cohesion of the team enhance team performance as illustrated in Figure 1.1 below.

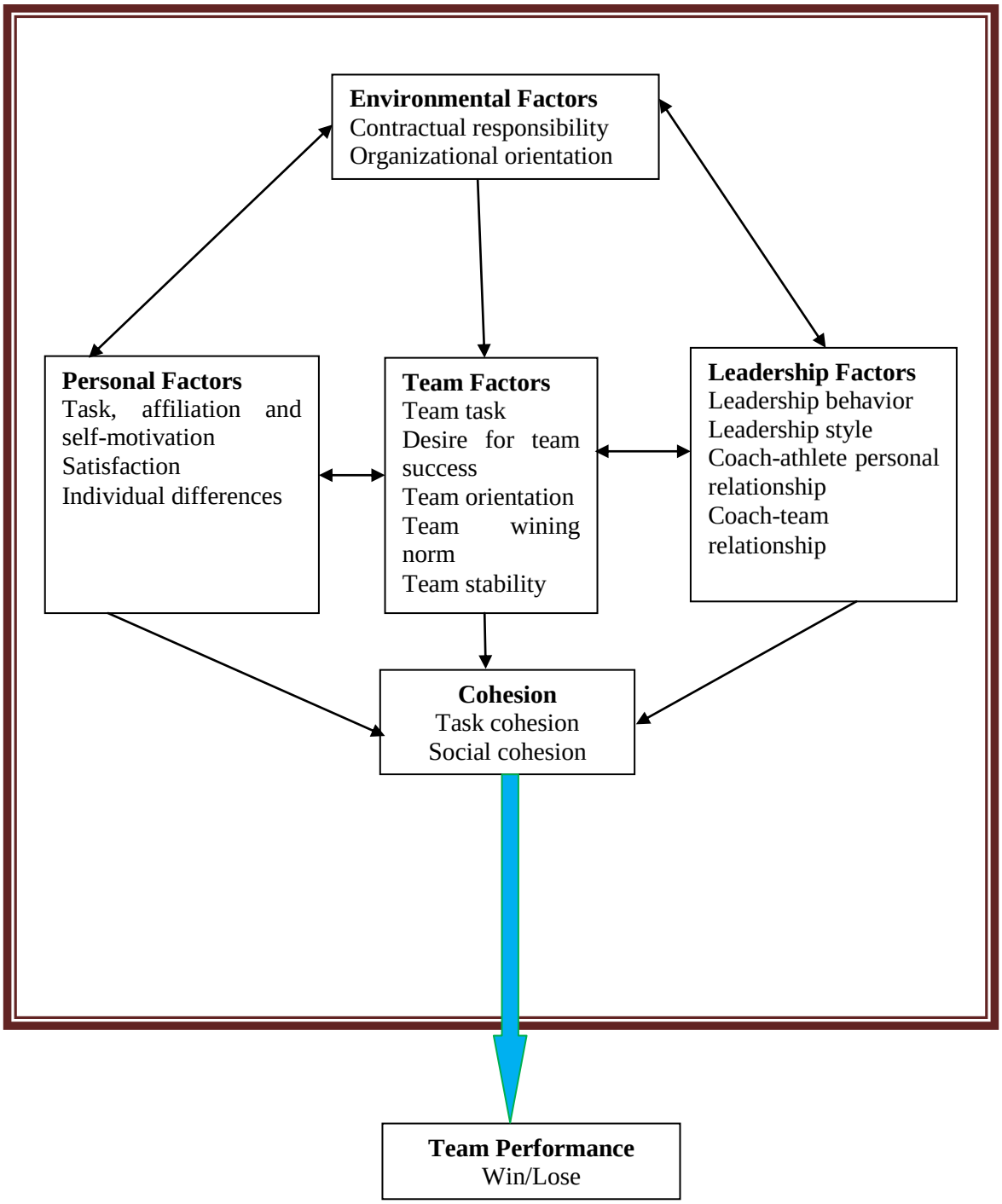

Figure 3: A General Conceptual Framework of the Study for Cohesion and Performance

Source: Adapted from Carron et al., (1998:63)

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CHAPTER THREE

STUDY DESIGN AND METHODOLOGY

3.1. The Research Design

The main objective of this study was to investigate the team cohesion and its contribution to enhancing team performance. To this effect, this study was employed a mixed type of research design that comprise of descriptive and qualitative study designs. The descriptive survey design was applied to assess the degree of cohesion and the contribution of cohesion towards promotion of the performance of U-20 Football Team of the athlete Tirunesh Dibaba Sport Training Center in the National U-20 Football Teams Premier League in 2018/19 season. This method was selected because it is helpful to identify present conditions and to point the present needs, immediate status of a phenomenon and facts findings (Youesh, 2006:105). Moreover, it was economical and rapid turnaround in data collection and identifying attribute of a large population from a small group of individuals (Kothari 2004:35). The qualitative method was employed as the focus of the qualitative research design was to gather and interpret data based on an interpretive social science approach suggested by Creswell (2009). This study analyzed comprehensive principles and ideas related to team cohesion and its contribution in enhancing team performance.

3.2. Study Area

The study was conducted in the athlete Tirunesh Dibaba Sport Training Center on U-20 Football Team in order to investigate the cohesion of this team and its contributions towards enhancing team performance in the National U-20 Football Teams Premier League in 2018/19 season. Athlete Tirunesh Dibaba Sport Training Center was established in 2002 EC at Asella town Woreda, the capital of Arsi Zone is found at 175 km away from Addis Ababa city in the south eastern direction. This town has a latitude and longitude of 7°57′N 39°7′E and 7.950ºN 39.117ºE, with an elevation of 2,430 meters above sea level.

U-20 Football Team was founded in 2008 EC under the guidelines of the Federal Democratic Republic of Ethiopia government's Youth and Sport Commission to recruit, select and train talented boys aged less than twenty years old from which they will be selected to be included in the National League of above 19 years old teams based on their performance, talent and success among other criteria that are employed. The team has 46 under 20 year's old boys, two technical officers and five coaches. Athlete U-20 Football Team takes part in the National U-20 Football Teams Premier League tournaments every year. In 2018/19 National

U-20 Football Teams Premier League tournament, U-20 Football Team is expected to make 18 competitions with similar U-20 teams that found across the nation. The map of the study settings is shown in Figure 4 illustrated below.

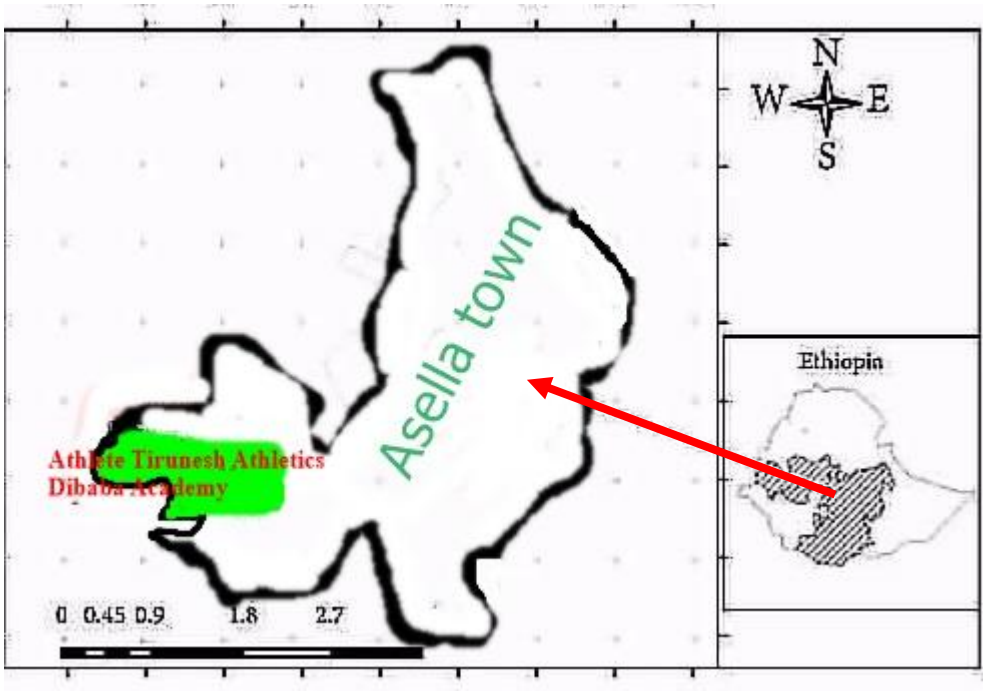

Figure 4: Map of the study area or settings

3.3. Sources of Data

The primary data sources were football players, coaches and technical officers from Athlete Tirunesh Dibaba Sports Training Center. Secondary data source of this study included numbers of recorded win, lose and draw out of the total tournaments made by the U-20 Football Team in the National U-20 Football Teams Premier League in 2018/19 season.

3.4. Target Populations and Sample Sizes

The intended populations in the proposed research were Football players who are currently trained in athlete Tirunesh Dibaba Sports Training Center, football coaches who are working in athlete Tirunesh Dibaba Sports Training Center and technical officers of athlete Tirunesh Dibaba Sports Training Center.

The sampling method to be employed for selecting coach and technical officers was census sampling technique since all the populations were selected for the study. The same method was employed for selecting respondent players. The sample sizes were 46 players, 5 coaches and 2 technical officers.

3.5. Instruments and Procedure of Data Collection

3.5.1. Instruments for Data Collection

Three different kinds of tools were used to collect the required data. Group environment questionnaire (GEQ), team performance questionnaire (TPQ) and interview schedule.

GEQ and TPQ were administered to all players of the U-20 Football Team of the athlete Tirunesh Dibaba Sport Training Center while the interview schedules were held with the five coaches and two technical officers.

GEQ has four main dimensions and predominantly employed to examine the degree of cohesiveness of the any sport team. These are individual attractions to the group-social (ATG-S) that contained five items, individual attractions to the group-task (ATG-T) which comprised of four items, group integration-task (GI-T) which consisted of five items and group integration-social (GI-S) that had four items (See Appendix III for the details). In overall, the GEQ consisted of 18 items that were developed by Carron et al., (2002a).

Table 1: The dimensions of the GEQ

GEQ Scales	Item Numbers
Individual Attractions to the Group-Social (ATG-S)	1, 3, 5, 7, 9
Individual Attractions to the Group-Task (ATG-T)	2, 4, 6, 8
Group Integration-Social (GI-S)	11, 13, 15, 17
Group Integration-Task (GI-T)	10, 12, 14, 16, 18

The full list of GEQ items are presented in Appendix III. Over nearly 20 years of research, the dimensions of the GEQ were found to have acceptable internal consistency reliability as presented in Table 2 below (reported in the GEQ test manual, Carron et al., 2002a):

Table 2: Internal consistency reliability of the GEQ dimensions

GEQ Scales	Cronbach's Alpha α
ATG-S	0.64
ATG-T	0.75
GI-S	0.64
GI-T	0.70

TPQ has six dimensions and 32 items. The Team Performance Questionnaire (TPQ) was developed by Donna Reichman (1998) and was selected to assess divergent and differential validity. The TPQ is a 32-item instrument rated on a 5-point Likert scale. The TPQ items are presented in Appendix IV. It measures six characteristics that distinguish high-performing teams from average- and low-performing teams as captured in the Team Performance Model also developed by Reichman (1998):

Table 3: The six subscales of the TPQ

TPQ Subscales	Item Numbers
Goals and Results	1-5
Collaboration and Involvement	6-10
Competencies	11-15
Communication Processes	16-20
Emotional Climate	21-25
Leadership	26-32

The content validity of the items within the TPQ was verified by a panel of five experts in team leadership and education. The TPQ was also found to have high internal consistency reliability (*N*=183) with subscale alphas ranging from .77 to .89. Each subscale alpha is not reported in the test manual. The subscales were also found to have acceptable test-retest reliability (*N*=44) (Reichman, 1998)):

Table 4: Internal consistency reliability of the TPQ subscales

TPQ Subscales	Cronbach's Alpha α
Goals and Results	0.71
Collaboration and Involvement	0.90
Competencies	0.78
Communication Processes	0.78
Emotional Climate	0.78
Leadership	0.80

GEQ and TPQ constituted the multidimensional team cohesion scale (MTCS) which contained 50 items as an overall.

3.5.2. Procedure for Data Collection

Questionnaires and interview questions was prepared for collecting data from players, coaches and technical officials and its validity and reliability was checked using pilot testing. The distribution and collection of the questionnaires was done with the researcher and assistant data collectors. The researcher and assistant data collectors were given orientations to the respondents and interviewees about the purpose of the study and how to fill the questionnaire items carefully with reasonable attentions. The questionnaires, after filled by the subjects of the study, were checked for completion at the field. Regarding the interview, semi-structured interview questions were prepared beforehand and presented to the coaches and technical directors on one to one basis. During the interview the researcher was taking notes so as to record the responses.

3.6. Validity and Reliability of the Instruments

3.6.1. Pilot Test

Before the final questionnaires were administered, pilot testing was conducted to coaches who are not included in the study. It helped to ensure that the respondents understand what the questionnaire wants to address and was performed with the objectives of checking whether or not the items contained in the instruments could enable the researcher to gather relevant information to identify and eliminate problems in collecting data from the target population.

3.6.2. Validity of the Instruments

To recheck the validity of the instruments besides the tested and proven validities by the respective developers, colleagues were invited to provide their comment. The participants of the pilot test were also informed about the objectives and how to fill, evaluate and give feedback on the relevance of the contents, item length, clarity of items, and layout of the questionnaire. Based on their reflections, the instruments were improved and their validities are approved in terms of construct, face and content validities.

3.7. Reliability of the Instruments

The reliability of GEQ is 0.787 and is greater than the minimum acceptable level of Cronbach's alpha which is equal to 0.70 and higher. Similarly, the reliability of TPQ is determined and found that it is 0.895. Thus, the reliability of MTCS is calculated and becomes 0.837. This implies that MTCS has excellent reliability in this study. The reliabilities of the subscales of the GEQ and TPQ are presented below (Table 5).

Table 5: Reliabilities of MTCS

Instruments and their dimensions	**Cronbach's Alpha α**
GEQ'S Subscales	
Individual Attractions to the Group-Social (ATG-S)	0.717
Individual Attractions to the Group-Task (ATG-T)	0.817
Group Integration-Social (GI-S)	0.726
Group Integration-Task (GI-T)	0.754
Overall GEQ	0.787
TPQ'S Subscales	
Goals and Results	0.767
Collaboration and Involvement	0.718
Competencies	0.695
Communication Processes	0.721
Emotional Climate	0.705
Leadership	0.886
Overall TPQ	0.895

3.8. Scoring GEQ and TPQ or the MTCS

In addition to ensuring the MTCS is reliable and valid, it was critical to clearly define how the measure is scored and how these scores are interpreted. A measure must have practical benefits. Understanding how the collected data can be scored and should be scored is important for the practical use of the measure whether it is used in evaluation and further research or for decision-making and the design of team interventions. Only the GEQ is provided with a test manual that outlines norms for understanding the meaning of scores obtained on its subscales. From a technical viewpoint, compiling norms that can be used as a 'standard' against which scores can be compared is important where a measurements scale is used that does not have a true zero, such as the Likert scale (Kline, 2000). From a theoretical viewpoint, comparing scores of individuals or teams on the MCTS with scores obtained on the measure from a large representative sample is important for understanding whether cohesion levels are high or low.

One of the strengths of the MTCS is in how cohesion can be scored. Team cohesion has most frequently been assessed through ratings provided by individual team members. Scores obtained are then often aggregated to obtain a team level score of cohesion that represents the team's level of cohesion. Cohesion is treated as a team-level variable. This aggregation of data to obtain a team level score enables researchers to assess the relationship between team cohesion and other global team properties such as team performance (Brannick, 1997).

GEQ was scored using scoring annexed as Appendix VI while TPQ was scored using TPQ scoring sheet annexed as Appendix VII. These scoring approaches employed in the study were consistent with systems of scoring MTCS; i.e., GEQ and TPQ of the developers and several other researchers (eg., Carron et al., 2002a; Reichman, 1998).

3.9. Data Aanalysis

The qualitative data was first coded thematically and then analyzed qualitatively using content method of qualitative data analysis. Regarding the quantitative data, the collected data was entered into SPSS Version 21 database developed for the same ends after they were checked and coded for further analysis. Finally, processed data was analyzed using descriptive statistical methods of data analyses like measures of central tendency such as mean and median; measures of variability such as standard deviations, variance and range; and inferential statistical methods of data analyses such as multivariate and univariate logistic regressions using SPSS Version 21 for Windows. Analyzed data or results of the study were

presented using frequency tables, charts and figures. Moreover, the results of the study were described using verbal accounts and explanations.

3.10. Ethical Considerations

Necessary ethical clearance and "**TO WHOM IT CONCERN**" letters as well as other necessary letters were obtained from Jimmaa University, School of Graduate Studies, Department of Sport Science, and from Asella town Woreda administration Office. Items of the questionnaire and other forms were stated (worded) in such a way that they were free from religious, ethnic and gender biases. Furthermore, study participant couples were informed about the objectives of the study, and then they were asked whether they were willing full or voluntary to participate in the study. After their verbal consents were obtained, actual procedures of data collection were followed.

CHAPTER FOUR

RESULTS, DESICCATION, ANALYSIS AND INTERPRETATION OF DATA

Collected data have been analyzed within the framework of the basic research questions and the specific objectives of the study. Results of the study are presented in four sub-sections that are detailed below.

4.1. Socio-Demographic Characteristics of the Respondents

The response rate of the study is 100 percent as all of the 46 players, 5 coaches and two technical officers were involved in the study. The mean and median ages of the players are 16.75 [16.75±0.766] and 17 years respectively (Table 6 and Figure 5). As clearly evident from the table and also from the figure, half of the players are 18 years old and is followed by 17 years old ones (32.6%).

Table 6: Age of the players in completed years

Age	Frequency	Percent	Cumulative
16	3	6.5	6.5
17	15	32.6	39.1
18	23	50.0	89.1
19	5	10.9	100.0
Total	46	100.0	

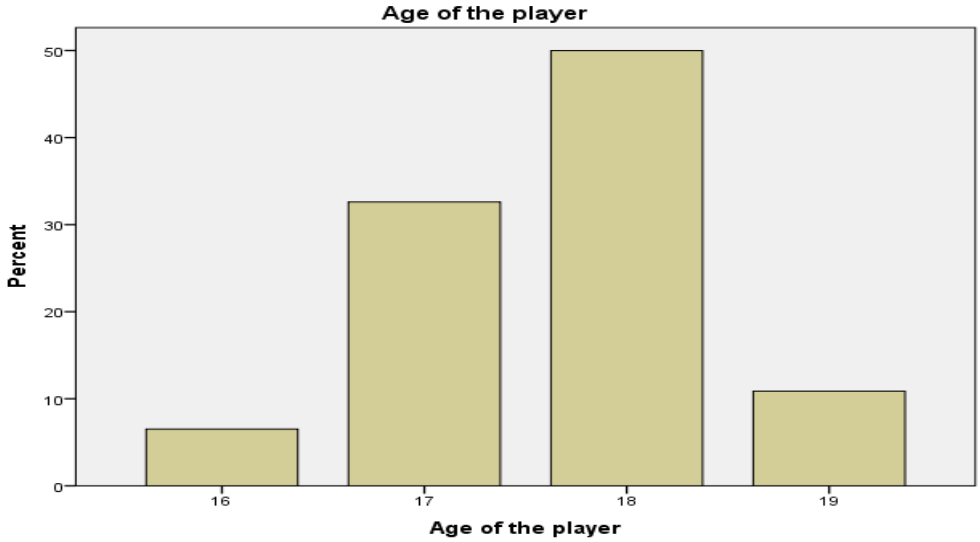

Figure 5: Ages of the players

On the average, the players have stayed with U-20 Football Team for 3.37 [3.37±0.853] years while the median duration of the players stay with the team is 4 years (Table 7 and Figure 6). Most (58.7%) of the players have been with the team since its establishment, i.e., for four

years and is followed by those that have been with the team for three years (21.7%). All of the players are males.

Table 7: Duration of stay of the players with U-20 Football Team

Durati	Frequency	Percent	Cumulative Percent
1	1	2.2	2.2
2	8	17.4	19.6
3	10	21.7	41.3
4	27	58.7	100.0
Total	46	100.0	

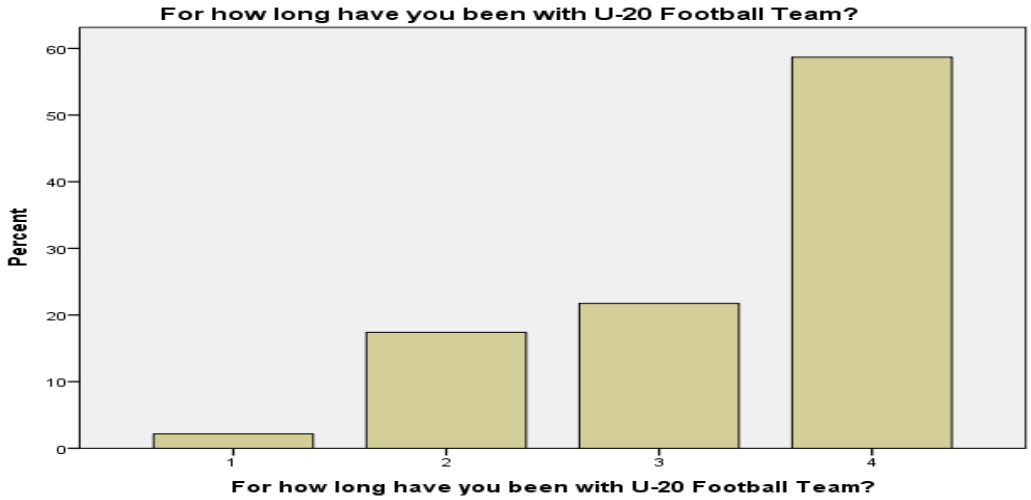

Figure 6: Duration of stay of the players with U-20 Football Team

All of the coaches and technical officers are males and belong to the age group ranging from 30 to 39 years. Except two of them, the rest are in marital relationship. None of them have friends among the players. All of the coaches and technical officers asserted:

> *"There is no any player whom I dislike and like more than others among all of the 46 players in the team. Also, all of the players are not popular yet. U-20 Football Team of the athlete Tirunesh Sport Training Center participate in the National or Ethiopian U-20 Football Teams' Premier League that comprise of ten different teams which are being trained in various centers across the country."*

4.2. Team Cohesion

Level of cohesion of U-20 Football Team of the athlete Tirunesh Sport Training Center was evaluated using Group Environment Questionnaire (GEQ) containing 18 items. GEQ has four dimensions; namely individual attraction to the team-social (ATGS0, individual attraction to the group-task (ATGT), group integration-social (GIS) and group integration-task (GIT). Thus, GEQ was used to evaluate the level of social- and task-cohesion of the team. The items

were developed on five-point Likert scale. The results of collected and analyzed data are presented using Table 8.

The mean level of individual attraction to the group-social (ATGS) is 3.33 [3.33±0.632] and ranges from 2.6 to 4.6; that of individual attraction to the group-task (ATGT) is 2.93 [2.93±1.035] ranging from 0.8 to 4.0; group integration-social (GIS) is 2.73 [2.73±0.585] which ranges from 1.6 to 4.0; and group integration-task (GIT) is 3.40 [3.40±0.761] and ranges from 2.0 to 5.0 on five point Likert scale. Again, the level of social cohesion of the team is found to be 3.03 [3.03±0.356] and task cohesion is 3.17 [3.17±0.807]. The overall level of cohesion of U-20 Football Team of the athlete Tirunesh Sport Training Center is 3.10 [3.10±0.475]. The minimum and maximum values for all dimensions of the GEQ and also for the social- and task-cohesion of the team are detailed in the table presented below (Table 8).

Table 8: Level of social-, task- and overall-cohesion of U-20 Football Team

Dimensions	SUM	MEAN	SD	MIN.	MAX.
ATGS	135.2	3.33	0.632	2.6	4.6
ATGT	135	2.93	1.035	0.8	4.0
GIS	125.6	2.73	0.585	1.6	4.0
GIT	156.6	3.40	0.761	2.0	5.0
ATGS + GIS	139.4	3.03	0.356	2.4	3.9
ATGT + GIT	145.6	3.17	0.807	1.4	4.2
COHESION	142.6	3.10	0.475	2.2	4.05

With regard to team cohesion, all of the coaches and technical officers expressed their individual views as follows:

> *"U-20 Football Team of the athlete Tirunesh Dibaba Sport Training center is somewhat cohesive both socially and in terms of task. However, the team is relatively more cohesive in terms of task than social aspects."*

4.3. Performance of U-20 Football Team in 2018/19

The performance of U-20 Football Team of the athlete Tirunesh Sport Training Center was evaluated using was evaluated using team performance questionnaire and win/lose/draw numbers recorded for the team in the National or Ethiopian U-20 Football Teams' Premier League in 2018/19 season. Until the time of data collection for the study, U-20 Football Team of the athlete Tirunesh Sport Training Center made 15 games. Out of the total 15 games it had played, the team had won 5 games and drew on 5 games but lost 5 games.

Consequently, the team has 20 points and rank sixth on the Ethiopian U-20 Football Teams' Premier League in 2018/19 season.

Moreover, the performance of U-20 Football Team of the athlete Tirunesh Sport Training Center was assessed on the bases of the responses of the players for the TPQ that consists of six different dimensions; namely, Goals and Results (Section A of the TPQ), Collaboration and Involvement (Section B of the TPQ), Competencies (Section C of the TPQ), Communication Processes (Section D of the TPQ), Emotional Climate (Section E of the TPQ) and Leadership (Section F of the TPQ). The performances of the team on the basis of these six dimensions are presented below (Table 9).

The expected performance of the team in terms of the first dimension of TPQ is 3.66; for the second dimension is 3.40; for the third dimension is 3.55; and for the fourth dimension is 3.57. Still, the mean expected performance of the team on the fifth and sixth dimensions of the TPQ are 3.80 and 3.01 respectively. The overall expected mean performance of the team is 3.48. Other expected performance values for the six dimensions and overall TPQ are detailed in Table 9.

Table 9: Performance of U-20 Football Team on the basis of TPQ's responses

Dimensions	**Sum**	**Mean**	**SD**	**Min**	**Max**
Goals and Results	168.4	3.66	0.747	2.0	4.6
Collaboration and Involvement	156.4	3.40	0.642	2.0	4.2
Competencies	163.2	3.55	0.868	1.0	4.8
Communication Processes	164	3.57	0.721	1.8	4.6
Emotional Climate	174.6	3.80	0.671	1.8	4.6
Leadership	138.4	3.01	1.267	1.0	4.8
Overall Performance	160.254	3.48	0.616	2.1	4.4

Concerning the performance of the team on the National or Ethiopian U-20 Football Teams' Premier League in 2018/19 season, the coaches and technical officers of the team expressed how they celebrate win and lose of the games by the team as follows:

> *"There is no specific player whom I blame when the team loses a game; rather I blame the team as a whole. Still, when the team wins a game, I give the credit for the whole players of the team and I don't give special credit for any player even if he is a talented or he demonstrates more competencies on that specific game."*

4.4. Contribution of Team Cohesion towards Team Performance

Researchers across the globe ascertain that there is positive relationship between high team cohesion and good performance. In the same vein, Mthiaine (2014) verified that the higher the level of cohesion of the team, the higher is its performance.

In the present study, the level of cohesion of U-20 Football team of the athlete Tirunesh Dibaba Sport Training Center has precisely dictated its actual rather than expected performance on the Ethiopian U-20 Football Teams' Premier League in 2018/19 season. In other words, the cohesion level of this team is medium and its actual performance is just one level below the median rank of the performance of the ten competent teams in the Ethiopian U-20 Football Teams' Premier League in 2018/19 season.

Concerning the contribution of high level of team cohesion towards good performance of the team, all of the coaches and the technical officers posited their claims with similar vein as follows:

> *"Cohesion of sport team positively contributes towards good actual performance of the team. Although both social- and task-cohesion positively contributes towards good performance of the team, task cohesion contributes more towards the team's actual performance than the social cohesion."*

The coaches and the technical officers were asked: "Taking the present actual performance of the team which you were coaching and assisting technically, what other factors could best account for its performance excluding cohesion?". The responses of all the coaches and the technical officers found to be the same and presented as stated below:

> *"Availability and access to materials, the quality and nutritional values of foods they have eaten, climate change, physical fitness, level of individual player's endurance and strength, tactical and technical skills of the players as an individual and the team, experience, number of players in the team, number of free games played to develop competencies with similar other teams and the likes are more likely factors that exert either positive or negative impact on the actual performance of any team. So, U-20 Football team of the athlete Tirunesh Dibaba Sport Training Center is not exceptional. Furthermore, the level of satisfaction of individual players as a person and as a team, and the inclusion/exclusion of player's goals within the overall goals of the team could affect actual team performance accordingly. In order to ensure individual player's goals and personal targets, we as coaches and technical officers of the team follow up and monitor the conduciveness of beds, the quality of the food they eat and their regular education on constant manner."*

DISCUSSION

The objective of the study was to assess the level of cohesion and the contributions of cohesion towards team performance among U-20 Football team of the athlete Tirunesh Dibaba Sport Training Center on the Ethiopian U-20 Football Teams' Premier League in 2018/19 season. The findings of the study revealed that U-20 Football team of the athlete Tirunesh Dibaba Sport Training Center had moderate or average level of cohesion both in terms of social- and task-cohesion as well as in overall level of cohesion. The expected performance of the team was high; however, its actual performance on the Ethiopian U-20 Football Teams' Premier League in 2018/19 season was below average as it stood sixth out of the total ten teams that took part in the competition in the season. Moreover, the finding of the study demonstrated that the level of overall cohesion and performance of the team coincided perfectly.

The mean level of individual attraction to the group-social (ATGS) was 3.33 [3.33±0.632] and ranged from 2.6 to 4.6; that of individual attraction to the group-task (ATGT) was 2.93 [2.93±1.035] ranged from 0.8 to 4.0; group integration-social (GIS) was 2.73 [2.73±0.585] which ranged from 1.6 to 4.0; and group integration-task (GIT) was 3.40 [3.40±0.761] and ranges from 2.0 to 5.0 on five point Likert scale. Again, the level of social cohesion of the team was found to be 3.03 [3.03±0.356] and task cohesion was 3.17 [3.17±0.807]. The overall level of cohesion of U-20 Football Team of the athlete Tirunesh Sport Training Center was 3.10 [3.10±0.475]. From these findings, it is possible to infer that U-20 football team of the athlete Tirunesh Dibaba Sport Training Center is moderately task cohesive and socially cohesive at moderate level. This in turn implies that the team has the necessary ingredients to stand at medium level of performance on the Ethiopian U-20 Football Teams' Premier League in 2018/19 season. However, until the time of data collection for the study, U-20 Football Team of the athlete Tirunesh Sport Training Center made 15 games and stood sixth on the League list which a rank lower than the inferred level of performance with 20 points by winning five and losing five games in the Ethiopian U-20 Football Teams' Premier League in 2018/19 season. The actual and expected performance of the team found to be discrepant as the expected performance of the team was very high (3.48) as compared to its actual performance.

The level of cohesion of U-20 Football team of the athlete Tirunesh Dibaba Sport Training Center had positive correlation with its actual performance as nearly its rank on the premier league corresponds with both levels of social- and task-cohesion obtained in the study.

In relation to these findings, research has shown that there is a relationship between player satisfaction and successful performance. Relationship between team cohesion and performance is primarily co-relational rather than casual (Sheryl and Bruce, 2005). Cohesion is associated with the extent to which team players are satisfied. Satisfaction refers to an individual's feeling towards their participation in a team, (Rintaugu, 2013). If an individual has a high degree of satisfaction they are more likely to feel good about themselves and their participation hence good performance. However, if a group lacks the ability to gain satisfaction substantially through its performances, team cohesion may decrease. Cohesive teams are more productive than less cohesive teams in performance. Martens and Robinson (1997) conducted a study on collegiate intramural basketball teams and found out that success in performance was dependent on individual satisfaction. Similarly, team players" satisfaction may lead to team cohesion hence successful performance. Therefore, it is important to promote team satisfaction through motivation and other forms of appraisals to the players.

The degree of interaction in a particular sport is also an important factor in team cohesion. Cox, (1990), suggests that sports could be categorized into high interaction in team sports (e.g. basketball, rugby, football) and low interaction individual sports (e.g. swimming, shooting, and cycling). Basketball is the main sport in this study and it is a group sport and highly interactive. Members of the team are expected to: (a) have a common identity that distinguishes them from other teams, (b) be socially attracted to each other, (c) be ready to complement each other, (d) put their team work before their own interest, (e) possess inner/ personal discipline, and (f) share goals and aims.

Teams whose players have the above qualities are destined to register improved team cohesion and perform better in the sports competitions (Wisel, 1994). However, individualized sports depend on a player's characteristic and preparedness in executing the skills to win the competition. Basketball is a team sport and players must have the qualities mentioned above for better results.

All in all, cohesion, in the context of teams, is all about the joining together of individuals to form a united and cooperative whole. Cohesion is an overall measure of group togetherness, and is based on three key factors: interpersonal attraction, defined as the tendency of one person to evaluate another person in a consistently positive manner; individual commitment, towards the collective and its objectives/goals; and feelings of personal satisfaction and pride, based upon the perceived achievements and/or opportunities derived from membership. If all three of these factors are found to be abundant within the majority of team members, the team

can be considered relatively cohesive. Performance can be defined as a measure of the effectiveness and efficiency of a given team, and its individual members, in pursuing predetermined objectives and goals. A team winning more matches is likely to have greater social and task cohesion between and within groups. A study by Wisel (1994) on steps to success in Basketball revealed that one great measure of a team composition is the diversity of team members and evaluated two groups, one group had similarities in age, race, sex, academic standards and backgrounds. Findings from this group showed that there was heightened team cohesion thus excellent performance. The other group differed in terms of age, race, academic standards, backgrounds but same sex; results indicated low cohesion and strain in good performance. This was a good indicator that homogeneity in a team was a key to improved team cohesion hence successful performance.

In another study, Carron, Bry and Eys (2003) examined the relationship between task cohesion and team success in elite basketball and football teams, measuring just the group integration task and group attraction to task categories of cohesion from the Group Environment Questionnaire (GEQ). Each member of the 18 basketball and 9 football teams responded to the items from the questionnaires and after the end of their regular season, they ranked each response from 1 (strongly disagree) to 9 (strongly agree). The key findings were as follows: (i) The mean team cohesion scores for basketball teams were 6.05 for group integration task and 6.11 for attraction to group task. For football teams, the mean scores were 6.33 and 7.04. (ii) Scores in both categories were highly correlated with team success for both sports, success being defined as match results over the season, excluding play-offs. The teams with the highest "team cohesion" scores had the best season won- loss percentage records. The study offers clear evidence that real-world sport teams benefit from high levels of task cohesion. The strength of the relationship between cohesion, as measured by the task categories of the GEQ, and team success as measured by the win: loss record was higher and the researchers believed that this was because they focused on task cohesion using the GEQ. The researchers integrated individual scores to produce a team cohesion score, and then related these scores to an indisputable measure of team success. Research has showed that team cohesion and athletic performance is associated (Wisel, 1994). However, this established association does not mean that a causal relationship between the two variables can be assumed. To have a true *test of causality*, one would have to manipulate team cohesion experimentally and then observe the systematic changes in team success. Experimental manipulation of team cohesion would imply an actual intervention on the part of investigators to weaken cohesion in some teams and strengthen it in others. Most of these studies have

been conducted from the West and it is worthwhile to conduct a study in Kenya. Interestingly, research into cohesion using the Group Environmental Questionnaire has suggested that "task" cohesion is more important for team success than "social" cohesion. This could explain why it is possible for team mates to dislike each other and still win (Carron et al., 1982). Most coaches and athletes prefer team mates to like each other, but it appears that as long as they are completely focused on their common task and share the same goals and beliefs, success is possible even without social cohesion. Another example of this principle at work is the Chicago Bulls which dominated the NBA in the 1980s: the team members allegedly didn't speak to each other off court, but practiced and competed together with 100% professionalism and commitment and maintained an excellent performance (Carron et al., 1982).

Muthiaine's (2014) findings indicate that the more the number of players in a team, the fewer the friends, leading to lower social cohesion. This may negatively influence team performance. Conversely, only 27(21%) of respondents indicated that there were players they disliked in their teams, and majority 103(75%) indicated that they did not have players that they disliked. The great number of dislikes within members of team had a negative effect on social and task cohesion, thus hindering successful performance. The results of his analysis also showed that there was a significance relationship between team cohesion and team performance in the National Classic League; there was positive task cohesion in teams where team mates celebrated wins and losses of matches together; and both social and task cohesion are positively related to successful performance in basketball (Muthiaine, 2014). These findings are consistent with the present finding. However, cohesion alone is not the guarantee for championship or for winning the games and become high performer as there are other factors that negatively impacted team performance in sports.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary

The response rate of the study was 100 percent as all of the 46 players, 5 coaches and two technical officers were involved in the study. The mean and median ages of the players were 16.75 [16.75±0.766] and 17 years respectively. Half of the players are 18 years old and is followed by 17 years old ones (32.6%). The players had stayed with U-20 Football Team for 3.37 [3.37±0.853] years on the average. All of the players were males.

The mean level of social cohesion of the team was found to be 3.03 [3.03±0.356] and task cohesion was 3.17 [3.17±0.807]. The overall level of cohesion of U-20 Football Team of the athlete Tirunesh Sport Training Center was 3.10 [3.10±0.475].

The performance of U-20 Football Team of the athlete Tirunesh Sport Training Center stood a rank lower than the median level of performance with 20 points cumulatively in the 2018/19 season in the league by winning five and losing five games. The overall expected mean performance of the team was 3.48.

There was direct one to one correspondence between the level of cohesion of this team and its actual performance in the season on the Ethiopian U-20 Football Teams' Premier League.

6.2. Conclusions

The U-20 Football Team of the athlete Tirunesh Sport Training Center was socially cohesive at moderate level and also moderately task cohesive. Its level of overall cohesion was medium. The actual performance of the team was nearly moderate. Thus, there is a positive relationship between the degree of cohesion and actual performance of the U-20 Football Team of the athlete Tirunesh Sport Training Center in the Ethiopian U-20 Football Teams' Premier League in 2018/19 season with 20 cumulative points standing sixth on the list.

6.3. Recommendations

Coaches and players need to consider the need for fostering cohesion in their teams as it is most likely to be related to win-loss patterns in team sports. A consideration should also be emphasized on the size of the teams as large teams are likely to be less cohesive hence more chances of loss in matches.

Small teams are highly cohesive and have high chances of winning. Teams are, therefore, encouraged to have a limited number of players so as to increase the cohesiveness of players and increase chances of improving their performances.

Team managers need to be more innovative in organizing social events and functions that regularly bring team members together to enhance their cohesiveness.

Coaches need to educate and create awareness among their players on the importance and contribution of cohesion to teams' performance.

Coaches need to encourage players to be concerned about the social and psychological needs of their teammates. This will enhance social cohesion between teammates.

There is need to conduct similar studies on cohesion of teams in other sports like soccer, basketball and volley ball, among others. Other variables to be investigated in relation to cohesion include coach's leadership style, motivation and ethnic affiliation.

There is need to conduct other studies on the relationship between cohesion and sport performance while controlling for variables such as competitions/leagues.

There is need to conduct studies to establish whether same level of cohesion is maintained throughout the U-20 Football Teams in the Ethiopian U-20 Football Teams' Premier League in 2018/19 season.

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Website Resources

http://en.wikipedia.org/Asella/climate.html

APPENDICES I
APPENDIX I: CONSENT FORM

I will keep your identity as a research subject confidential. The information about you will be identified by the study number and will not be linked to your name in any records. Your name will not be used in any published reports about this study.

Although I will make every effort to keep your information confidential, no system for protecting your confidentiality can be completely secure. It is still possible that someone could find out you were in this study and could find out information about you.

You may withdraw from the study; refuse to answer any of the questions asked or to have any of the tests described above at any time without loss of benefit or penalty.

If you have any questions regarding the study you can contact the investigator listed above. You are free to refuse to participate in the study.

Signature of investigator _____Date_____

Name of Investigator: Basazin Lemma

Subject's statement:

This study has been explained to me. I volunteer to take part in this research. I have had a chance to ask questions. If I have questions later on about the research I can ask the investigator listed above. If I have questions about my rights as a research subject, I can call the Principal investigator at +251913089388 or +251996812622. I will receive a copy of this consent form.

Signature of subject _____Date _____

Name of Subject_____

APPENDIX II

INFORMATION SHEET

Jimma University

School of Graduate Studies

Department of Sport Science

Dear respondents/intervieweés,

The purpose of this questionnaire is to assess team cohesion and its contributions towards enhancing team performance of U-20 Football Team of the athlete Tirunesh Dibaba Sport Training Center. The eligible subjects for this study are under 20 years' old boys who are held in the team, coaches and technical officers of the team. The quality of the study depends on the information that you are supposed to give. All your responses a will be kept confidential and will be used for the academic purpose of this research only. Therefore, please try to answer all questions frankly. Please also note that all information you are supposed to provide me will be kept secret and used only for the research purpose. As reports will be prepared based on aggregated responses of all respondents, your identity and personality won't be publicized at all. Your involvement is regarded as a great input to the quality of the research results. Hence, I believe that you will enlarge your assistance by participating in the study. Your honest and thoughtful response is invaluable.

Thank you for your participation!

Best regards, Basazin Lemma

MSC student of Jimma University

June, 2019

Appendix III

Multidimensional Team Cohesion Sport Scale [MTCS]

Player ID: _____

Age: _____

Sex: _____

Date: _____

This questionnaire is designed to assess your perceptions of your team. There are no wrong or right answers, so please give your immediate reaction. Some of the questions may seem repetitive, but please answer ALL questions. Your personal responses will be kept in strictest confidence.

Please read the following items carefully and rate your level of agreement or disagreement based on how well you feel you get on in within the team. Please answer the items for the SAME team.

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

SN	ITEMS	SCALES				
		1	2	3	4	5
The following statements are designed to assess your feelings about YOUR PERSONAL INVOLVEMENT with this team. Please CIRCLE a number from 1 to 5 to indicate your level of agreement with each of these statements.						
1	I do not enjoy being a part of the social activities of this team.					
2	I'm not happy with the amount of playing time I get.					
3	I am not going to miss the members of this team when the season ends.					
4	I'm unhappy with my team's level of desire to win.					
5	Some of my best friends are on this team.					
6	This team does not give me enough opportunities to improve my personal performance.					
7	I enjoy other parties rather than team parties.					
8	I do not like the style of play on this team.					
9	For me, this team is one of the most important social groups to which I belong.					
The following statements are designed to assess your perceptions of YOUR TEAM AS A WHOLE. Please CIRCLE a number from 1 to 5 to indicate your level of agreement with each of these statements.						
10	Our team is united in trying to reach its goals for performance.					
11	Members of our team would rather go out on their own than get together as a team.					
12	We all take responsibility for any loss or poor performance by our team.					
13	Our team members rarely party together.					
14	Our team members have conflicting aspirations for the team's performance.					
15	Our team would like to spend time together in the off season.					
16	If members of our team have problems in practice, everyone wants to help them so we can get back together again.					
17	Members of our team do not stick together outside of practice and games.					
18	Our team members do not communicate freely about each athlete's responsibilities during competition or practice.					

Appendix IV

Team Performance Questionnaire (TPQ)

Please read the following items carefully and rate your level of agreement or disagreement based on how well you feel you get on in within the team. Please answer the items for the SAME team.

Strongly Disagree=1, Disagree=2, Neutral=3, Agree=4, Strongly Agree=5 and Don't Know=8

Player ID: _____

Age: _____

Sex: _____

Date: _____

In your team…

SN	ITEMS	SCALES					
		1	2	3	4	5	8
I	**SECTION A**						
1	You are clear about the team's goals.						
2	Your goals are inspiring to team members.						
3	Members understand their responsibilities and accountability.						
4	You set high standards for our team's performance.						
5	You continually strive to improve our performance and product.						
II	**SECTION B**						
6	Members collaborate with one another.						
7	Members feel a sense of belonging to the team.						
8	You are able to share information and ideas freely and honestly.						
9	The ideas of every team member are valuable.						
10	Team members work well together.						
III	**SECTION C**						
11	The team is organized effectively to do our work.						
12	Each team member is able to fully use his/her skills and abilities.						
13	You capitalize on the strengths of team members						
14	Each team member is encouraged to develop new competencies.						
15	Team meetings are efficient and productive.						
IV	**SECTION D**						
16	Members are able to communicate easily with one another.						
17	Each member is able to influence the team's decisions.						
18	You accept each other's opinions as valid and important.						
19	You are able to discuss and resolve conflicts.						
20	You solve team problems as a group						
V	**SECTION E**						
21	You demonstrate our desire to do our best.						
22	Each member demonstrates commitments to the team.						
23	Members go out of their way to get things done.						

24	Each member is clear about and identifies with the team's values.					
25	Members demonstrate a high level of energy and enthusiasm.					
VI	**Answer the following items about your team leader:**					
26	Your leader demonstrates a high level of integrity.					
27	Your leader keeps the team informed.					
28	Your leader sets clear expectations for individuals and the team.					
29	Your leader confronts performance problems.					
30	Your leader rewards superior performance.					
31	Your leader expresses appreciation for members' contributions.					
32	Your leader involves members in decision making					

.

Appendix V

Team Leader/Coach Interview Questionnaire

Instructions: Please write the most appropriate response that applies to you in the blank space provided

1) Type of league _____
2) No. of players in your team _____
3) No. of times the team has won:_____ Lost: _____ in the past one year
4) Gender: Female [ ] Male [ ]
5) Age group (Years) 21-30 [ ] 31-40 [ ] 41-50 [ ] Above 50 [ ]
6) Marital status: Married [ ] Single
7) How many friends do you have in the team? _____
8) What activities do you share with members of your team? _____
9) Do you dislike any players in the team? Yes:___ No: ___ Non - committal:___
10) Give reasons for your dislike? _____
11) Are there popular and unpopular players in your team? Yes___ No ___
    Number of popular _____ Number of unpopular _____
12) When you win, do you celebrate as a team or you give credit to only talented players?
    Yes: [ ] No: [ ] Non-committal: [ ]
13) When you lose a game, do you blame particular players in the team or a team as a whole? Team[ ] particular players[ ]

APPENDIX VI:

GEQ SCORING SHEET

Individual Attractions to the Group-Social (ATGS)		**Individual Attractions to the Group-Task (ATGT)**	
Item#	Score	Item#	Score
1*		2*	
3*		4*	
5		6*	
7*		8*	
9			
Sum		**Sum**	
Mean		**Mean**	
Group Integration-Social (GIS)		**Group Integration-Task (GIT)**	
Item#	Score	Item#	Score
11*		10	
13*		12	
15		14*	
17*		16	
		18*	
Sum		**Sum**	
Mean		**Mean**	

(*) Items are reverse scored.
Each factor is summed and then an average taken for individuals, and then the team.

APPENDIX VII: TPQ SCORING SHEET

Goals and Results		Collaboration and Involvement	
Item#	Score	Item#	Score
1		6	
2		7	
3		8	
4		9	
5		10	
Sum		**Sum**	
Mean		**Mean**	

Competencies		Communication Processes	
Item#	Score	Item#	Score
11		16	
12		17	
13		18	
14		19	
15		20	
Sum		**Sum**	
Mean		**Mean**	
Emotional Climate		Leadership	
Item#	Score	Item#	Score
21		**26**	
22		**27**	
23		**28**	
24		**29**	
25		**30**	
		31	
		32	
Sum		**Sum**	
Mean		**Mean**	