

**ASSESSING FACTORS AFFECTING THE PERFORMANCE OF  
SHORT DISTANCE RUNNERS IN THE CASE OF FOUR FIRST  
DIVISION ATHLETICS CLUBS IN ADDIS ABABA CITY  
ADMINISTRATION**

**BY**

**AGUMAS BELAY YOHANNES**

**JUNE, 2020**

**ADDISABABA, ETHIOPIA**

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## **Statement of Certification**

This is to certify that Agumas Belay has carried out his research work on the topic entitled “assessing factors affecting on the performance of short distance runners in the case of four first division athletics clubs in Addis Ababa city administration”. The work is original in nature and is suitable for the submission for the reward of MSc Degree in sport science

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## **Statement of Declaration**

I declare this thesis is my own work. I have followed all ethical principles of scholarship in the preparation, data collection, data analysis, and compilation of this Thesis. Any scholarly matter in the Thesis has been given recognition through citation. I solemnly declare that this thesis hasn't been submitted to any other institution anywhere for the award of any academic degree, diploma, or certificate.

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## **Acronyms and Abbreviations**

AOG: Ancient Olympic game

IAAF: International Association of Athletics Federations

BC: Before Christ

E.C: Ethiopian Calendar

## ***Abstract***

*The purpose of the paper is to assess factors affecting the performance of short distance runners. This study concentrated on four functional athletics clubs in Addis Ababa city administration in the training year 2012. The researcher mainly used to present and analyze the study quantitatively by the methods of descriptive survey. The participants of this study were 69 short distance athletes, selected by cluster sampling method and census sampling techniques to select coaches' and also club managers. As a method of data gathering tools questionnaires, interviews and observation were used. The data obtained through these techniques were analyzed and presented by using descriptive statistics of frequency counts and percentages to identify the major findings. The result of the study, therefore, described that the major constraints associated with short distance athletes/runners as factors affect during training and competition times( lack of effective & individualized training(routine/monotonous types of training, doing training for a long time /inappropriate training and no future improvement methods), Unscientific/norm athlete selection, absences of coach assistance, lack of use scientific methods, less technical training in a week, less athlete and coach rations, less incentive, lack of giving attention to the discipline, presence of psychological barriers)).regarding to nutrition ( lack of sufficient and balanced diet before and after training) and concerning to coach performance (lack of knowledgeable coaches who are filled and giving training by identifying gaps or limitations, and week coach and athletes relationships, lack of well-prepared gym trainer concerning to athletics specific training) and also as regarding training facility ( lack of their own gymnasium and lack of basic facility or scarcity of sports facilities and equipment supplies) were found to be the major factors taken.*

Key words: sprinting running

# UNIT ONE

## Introduction

### 1.1. Back Ground of the Study

Athletic is the centerpiece event in every athletic competition and it was part of the Ancient and Modern Olympic. Organized athletics are traced back to the Ancient Olympic Games (AOG) starting from 776 BC. The rules and format of the modern events in athletics were established with Western Europe and North America in the 19th and early 20th century and were then spread to other parts of the world. Adopted from <https://www.tutorialspoint.com/running>

Quercetin (1964) stated that of all sports, sprinting is the simplest. All that is required to run the race is a start and finish line, and an accepted method of starting the race. The winner is the first person to cross the finish line. Sprinting over short distances is one of man's earliest athletic pursuits. The pioneering event in the ancient Olympic Games was the 'stade', which was equivalent to the length of the stadium—192m—at Atlis, the theatre of the games. The earliest records of the Olympic Games credit the winner of the sprint event in the ancient Olympics of 776 BC at Olympia to Coreobus, a cook from the nearby city of Elis. The ancient tradition of honoring the fastest person on the day still holds today in major championships, with the awarding of medals. The introduction of accurate and reliable time-keeping has also led to the establishment of world records.

Sprints are short distance running competitions, usually/ currently held at the modern summer Olympics and outdoor world championships: the 100, 200, and 400 meters, and a 60-meter sprint races are also conducted in indoor championships. Adopted <http://www.tutorials.com/running>

According to Sileshi Bisrat(2009E.C) when athletics exactly started in Ethiopian cannot be retraced back accurately, it is widely believed that the sport was widely practiced in schools and military camps before 1897. The sport was limited to these parts of society only because others didn't have access to equipment used for competitions or was not organized in a manner that motivated progress. In addition to this Abera Assefa (2013) defined that modern sport has a history of over half a century in Ethiopia and the development of the modern sport is still at the infancy level.

Many factors affect sprint performance among those factors external and internal. To achieve sprint events the athlete must focus on reaching and maintaining maximum speed. The following factors determine sprinting performance: morphological structure and muscle fibers, regulating procedure of nervous system, muscular strength, technique, elasticity and relaxing capacity of the muscles, phosphogen stores and metabolic process, psychic factors the right food choices its effects that may be not be productive to the improvement of performance or diet, rest and proper warm up and stretching must come into play. Adopted from the science of sport training book (p128-138)

### **1.2. Statement of the Problem:**

Ethiopia had many great achievements in the athletics sports fields. Globally, the Ethiopian Athletes are well known especially in long and middle distances. But there is a problem in Short distance running. Sprinter athletes aren't fruitful or aren't active participant, When athletes were performed training there were difficulty or a situation that is not well understood, among practitioners in a field. Aimed at contributing to indicate those problems whether it affects or not athletes' performance and is it athletes or coaches problem to address for consideration. The most problematic: in the world athletics history Ethiopia has less participation in the short distance race. According to TezeraAsegu, (2012), MamoWolde and AbebeBikila participated 100 meters sprinting at Melbourne Olympic and Mister Mose(2016) stated that Ethiopian 400m runners TegegneBezabeh in 1968 ran final and BerketDesta ran in London 2012. In the world, athletics history Ethiopia didn't register a good result in a short distance competitions race. In line with this TegegneBezabeh ran in 1968 400m with (45.42), at Mexico Olympic game and BerketDesta ran in London 2012 (47.40).Ethiopian sprinter athlete's time isn't improved from 1968 and 1971 until this year, on the contrary, the time decrease from year to year. On the other hand still, now considerable attention has been not given to short-distance athletes with concerning bodies or Ethiopian short distance athletes aren't get equal concentration as long-distance athletes. Different results the athletes' performance doesn't improve year to year, rather it decreases. To this TegegneBezabeh ran in 1968 ran 400m with (45.42) this time is until Ethiopian record at world level and in Ethiopia 400m record holder BereketDestaran with 45.79 in 2003 E.C, but AbidurahemanAbedo ran 46.04 in2010 E.C. workutolira ran with 46.60 in2011 E.C, and same athlete AbidurahemanAbedo ran 47.02 In 2012 E.C Female 400m runners record holder Genet Liry ran 51.44 in 2006 firyheyewotewondye ran with 54.74 in2010, E.C

Shembramekonnen ran 56.2 in 2012 E.C. GebreGebregziran 100m with 10.10, in 1971, but after 37 years later WetereGalcha, ran 100m, with 10.61 in 2008 E.C. BediruMehamde 10.26 in 2010 E.C and NatanAbebe 10.36 in 2011. Negussie Gechamo ran 200m, with 20.7, in 1998, wetereGalcharan with 21.30 in 2007 after 9 years. BediruMehamde 21.29 in 2010 E.C and AbiduWassihun 21.33 in 2011 E.C. all those indicated that the time diseases. Comparatively Ethiopian sprinter athlete's race times are much less than African continental level and world record holder athlete times. I.e. as indicated from the table the difference between Ethiopian and east African and world best times.

Table 1 Comparing and Contrasting Of Running Time of Athletes

No	Country	400m	100m	200m
1	Ethiopian 1968, 1971, 1998 and 2007	45.42	10.10 and 10.61	20.7 and 21.30
2	East Africa Kenya athletes, 1995 and 1994	44.37 and 45.30		
3	South African athlete 2016	43.03		
4	Nigerian 1996		9.86+0.8s	
5	World fastest time 2016 South Africa athlete	43.03		
6	Usain Bolt 2009		9.58	19.19

Source: from, <https://www.iaaf.org/records/toplists/sprints/400,metres/outdoor/men/senior/2019>

Although still now considerable attention has been not given to short distance running with concerning bodies and to this Ethiopian short distance running doesn't get equal concentration as long-distance running. This is that long-distance athletes get many competition opportunities in Ethiopian as great Ethiopian run, 2 or 3 times cross country competition, many road races, in and out of Ethiopia and many diamond league competitions, many time trials, world championships competitions, and Olympic Games. On the contrary, short distance athletes have got fewer competition opportunities in and out of Ethiopia they didn't participate in the world championship, in the diamond league, in different competitions and they haven't participated in Olympic Games. According to this idea Bezabih Wolde & Benoît Gaudin, (2007-2008, (p476),

stated that Ethiopian athletics federation doesn't give concern to the sprint races (from 100m to 400m) aren't especially favored.

### **1.3. The objective of the Study**

#### **1.3.1. General Objective of the Study**

To assess factors affecting the performance improvement of short distance runners\_in the case of four functional first division athletics clubs in Addis Ababa city administration

#### **1.3.2. Specific Objectives**

This study focus on the following points:-

- To identify factors that affect short distance runners' performance during training and competitions.
- To know taking nutrition before training the values for short distance runners to improve sprint performances.
- To find out the coaching system whether it is interesting or not for short distance runners.
- To assess whether they have facilities or equipment access for short distance runners to improve their performance.

### **1.4. Research Questions**

The study attempted to answer the following questions:-

1. What factors affect short distance runners' during training and competition times?
2. Is there necessary facility access for short distance runners to improve their performance?
3. Are short distance runners taking training with qualified or knowledgeable coaches?
4. Is nutrition's after training for short distance runners supplied by their clubs taking to improve sprint performances?

### **1.5. Significances of the Study**

The finding of this study has been expecting to be a good input and source for the following pertinent bodies.

- The study would be helpful to find out the scientific training methods for the development of sprinter performer athletes.

- The study will help the stakeholders, coaches, and athletes, as they would be able to scientifically understand and assess the changes in the performance parameters owing to selected training programs.
- To give invaluable feedback/information based on facts about the problems of this event for concerned bodies.
- To provide sufficient ground for further studying in the area broadly.

### **1.6. Delimitation/ Scope of the Study**

The study was delimited by focuses on assessing factors affecting the performance of short distance runners in the case of four functional first division athletics clubs in Addis Ababa city administration. This research was conducted with 69 athletes and 8 coaches and also 4 official leaders from the Defense athletics club, Ethiopian commercial bank, Ethiopian electric (EELPA), and federal Maremiya athletics club, and this study only concerns external training and competition factors. On the contrary, this study doesn't including internal factors or physiological aspects problems.

### **1.7. Limitation of the Study**

Certain factors may affect the result of the study:

- COVID virus 19 pandemic problem
- Lack of cooperation from a few coaches to get reliable information
- Some respondents didn't volunteer to answer the questionnaires
- There weren't enough sources that are documented in a well-organized manner and enough related review literature related to Ethiopian short distance runners results and status sprint runners.

### **1.8. Organization of the Study**

This thesis has five chapters: chapter one describes the background of the study, statement of the problem, the objective of the study and specific objective of the study, research questions, and significance of the study, delimitation or scope of the study, limitation of the study, organization of the study and operational definition of terms are included in this chapter. Chapter two discusses the review of related literature pertinent to the research title and statement of the problem. Chapter three includes: research design and methodology, which outlines the research

design, research methods, data collection instrument, method of data analysis, procedures of data collection, and method of sampling, the population of the study, sampling techniques, and area of the study, pilot study, reliability, and validity are under this chapter. Chapter four discusses research results/ findings and discussions. Chapter five holds summary conclusions and recommendations.

### **1.9. Operational Definitions of Terms**

The following key terms were used throughout this document and to ensure clarity of meanings and usages, the terms are defined below:

- **A coaching style:** is the way in which the coach delivers his or her coaching session and in part is dependent on their philosophy of coaching.
- **Club:** is the organization that provides sports facilities to members.
- **Observation** – ability to know what to look for in a logical order.
- **Sprinting:** is running over a short distance in a limited period of time in athletics sprints (or dashes) are races over short distances.
- **Training:** It is a program of exercise designed to improve the skills and increase the energy capacity of an athlete for a particular event.
- **Assess:** to carefully consider a situation or problem in order to make a judgment.
- **Factor:** a situation that influences the result of something:

## CHAPTER TWO

### REVIEW OF LITERATURE

#### 2.1. Sports Performance

Brooks et al. (1993) defined that Performance is measured as an increase in maximum power output during the initial period of exercise, an increase in the amount of work done during a brief exercise bout, or an increase in exercise duration at high exercise intensities and Kent, (1998): described that sports performance is the outcome of systematic and rational sports training.

Nevill et al. (1989) investigated the effect of 8 weeks of high-intensity training on metabolism during a 30-s treadmill sprint. Sixteen matched subjects were assigned to either training or a control group. After training, peak power increased by 12% during the initial period of exercise, and the total work done during the test was increased by 6%. This improvement in performance was equivalent to a 1.5-s reduction in 200-m running time. Maximum muscle lactate concentration increased by 20% after training, and an equivalent increase in the rate of ATP resynthesis from anaerobic glycolysis was also observed. The excess post exercise oxygen consumption also increased by 18% after training. However, despite the increase in muscle lactate concentration, training did not change muscle pH during maximal treadmill sprinting.

#### 2.2. Determinants of Sprint Performance

Gary J. Slater, et.al. (2019), defined that sprint performance, is important to competitive success across a range of athletics events and the track sprinter is concerned only with generating maximum velocity/speed and with limiting the loss of this as the sprint progresses and According to Ross et al., (2001) sprint performance is determined primarily by reaction time, acceleration, maximum running velocity,

#### 2.3. Performance Factors

Avoid injury and meet the demands of training day after day, factors like diet, rest, and proper warm-up and stretching must come into play. Athletes will not be able to sustain a high level of performance throughout a long season without taking proper care of their bodies at, and away from, the track (, Joseph L. Rogers ,2000).

### **2.3.1. Diet**

The athlete's diet affects his or her performance directly. Competitive athletes must eat a balanced diet containing all four food groups, and eating a variety of foods within each group is essential. For example, in the vegetable group it is beneficial to eat all of the different colors of vegetables in order to receive every type of vitamin and mineral, as well as antioxidants. Power athletes should follow a 40-40-20 ratio:

✚ A diet composed of 40 percent protein, 40 percent carbohydrates, and 20 percent fats.

### **2.3.2. Rest and Recovery**

Along with eating right, an athlete should rest and recover properly. It's important to use a variety of recovery approaches in order to determine which ones each athlete responds to the best. Complete rest means not performing any physical activity, while active rest involves maintaining some level of physical activity that does not pertain to the athlete's event.

### **2.3.3. Competition**

Being mentally ready for a competition is just as important as being physically ready. The two go hand-in-hand. Setting goals and practicing mental training techniques will help athletes compete at the level of their potential.

### **2.3.4. Mental Toughness**

A strong mental disposition allows the athletes to accept challenges, handle stress, and assume responsibility for successes and failures. The best way to put your athletes in the right frame of mind and to reduce their stress is to adequately prepare them for every aspect of competition. The best ways for athletes to prepare include being in good physical shape, planning which competitions they will participate in and focus their training around, evaluating performance and progress, setting goals, creating training timetables, and learning to hold themselves accountable. A large factor in the ability to cope with stress is self-confidence. This is developed through fitness preparation, skill development, and improved performance.

## **2.4. The Sprints or Short Distance**

K. D. Tipton et al (2007) stated that the sprint events cover distances from 60 to 400 m this event rely primarily on the development of power through anaerobic energy, the phosphocreatine systems for energy. A sprint consists of an all-out effort for a short period of time and it is the art

of running as fast as possible. Power and coordination are the essential ingredients in the production of speed.

### **2.5. Sprint Performance Development**

According to Haugen et al. (2018) Sprint performance capacity evolves and devolves throughout life via growth, maturation, training, and aging and according to Hollings SC et.al (2014) Age of peak performance in world class sprinters is typically 25–26 years. Athletes who start with specialized training at a young age may also tend to reach their peak performance at an earlier age than their counterparts who specialize somewhat later.

According to Haugen et al. (2018) for world top 100 sprinters in their early 20s; mean a annual improvements were in the range of only 0.1–0.2%. Haugen et al. (2015) reported that the world's all time best male and female sprinters improved by an average of 8% from 18 years of age. On the other hand trainability variations across performance level may also be explained by other factors (e.g., training status, responsiveness to training, coaching quality, nutrition, etc.). Lloyd RS et.al (2015) defined that Taken all findings together, sprinters who perform at a high junior level without excessive specializations are at the optimal point of departure for senior success.

### **2.6. Sprint Training or Short Distance Training**

K. D. Tipton et al (2007) described that Sprint training is focused on developing lean body mass capable of generating the power necessary to carry the athlete as rapidly as possible.

Susan Lanham-New (2011) explained that the purpose of sprint training is to sustain higher power outputs for short periods (i.e. 10-50s). The sports that sprint training is particularly relevant to is track sprinting (i.e. 100, 200, 400m) many athletes need to undertake sprint training to work on their muscle strength, power and or speed. Sprint athletes engage their muscles in response to a wide variety of contraction stimuli that induce varied effects on muscle protein turnover and ultimately influence skeletal muscle adaptations after a defined training period.

Marko T et.al (2014) stated that sprint running ability is determined by multiple biomechanical and neuromuscular factors: Some of the major biomechanical and physiological changes that may be associated with decrease in sprint performance with age in from athletes. In order to maximize sprinting potential, athletes of all ages should adhere to training practices in which demands of the sport and athlete's individual strength and weaknesses are carefully considered.

Because age-related loss of muscle mass seems to be primarily responsible for the changes in sprint running ability, care must be taken to design exercises which promote muscle growth with special emphasis to increase the size of fast-contracting type II fibres. Furthermore, older age can lead to impaired recovery and may require modifications in short- and long-term periodisation of training (variation of volume, intensity and exercise selection) to optimize adaptation and peak performance before important competitions.

### **2.7. Training to Overcome the Speed Barrier**

Tabachnik, (1992) defined that Sprint training is called the speed barrier or speed plateau, is in the intensive, highly focused training that usually leads to monotony and creates both psychological and physical fatigue. Besides, maximal speed indicators are stabilized and, after some time, restrict the transfer toward a higher level of speed and an athlete advances in a speed development program, it becomes increasingly important to select the proper drills and exercises specific to his/her particular event, because as skill and performance increase, the available range of exercises that optimally stimulate improvement narrows. Thus, the training program shifts from general preparation to more specific preparation for the competitive activity. Sprinters, for example, require specific exercises that include running at maximal velocity for short (20-80m) and long (150-300m) distances. To be effective, these exercises require a great number of repetitions. High-velocity sprinting is the most event-specific exercise that sprinters can do and should be the backbone of the training program during all phases of the training year.

Kurz, (2001) explained that coaches are faced with a paradox: To improve speed abilities, the athlete has to run at maximal velocity. But the more the athlete runs at a maximal velocity in training, the earlier a speed plateau will be experienced. Standard training theory tells us that there are two approaches to avoiding or overcoming a speed plateau: 1) assisted sprinting and 2) variation and contrast training. It is typical of the speed plateau that it includes space, time, and frequency characteristics of the movement. This means that the athlete learns to move at a certain speed, and not any faster, even though his or her abilities (such as strength, flexibility, or even reaction time) improve. It is worth mentioning that the speed plateau most often occurs in beginners who are introduced to narrowly sport-specific training too early, at the expense of general development.

## **2.8.Means of Speed Development**

Peter J L Thompson (2009, p100-101) it has been suggested that Speed training involves the development of skill so that the technique is performed at a faster rate. The most common distance for senior athletes is 30 meters which is why the exercise is known as ‘Flying 30s’.The coach marks out an acceleration zone of 30m,

### **2.8.1. Technical Training**

An athlete's mechanical potential is measured by the ability to place each body segment in certain required positions to reduce ground time, improve stride frequency and stride length, and reduce the air time of each stride. All of this, in turn, will contribute to faster speeds. Coaches must develop a technical model for each of their athletes that display their stride pattern. According to Morin JB (2011) although research literature has emphasized the importance of technique on sprint running performance very few sprint-related studies are devoted to how optimal mechanics can be achieved. Francis C. (2019) although sprint training “always” involves technical aspects, sprint drills are commonly used by practitioners to reinforce the technical work, for proprioception, and to isolate specific movement features. Schmidt RA, Wrisberg CA (2008) has been stated that Motor learning research tells us that for positive reinforcement of the technique to occur, the biomechanics used in practice must closely resemble those used in competition.

## **2.9.Developing Strength and Power**

Benz A, et.al (2016) described that training recommendations for hypertrophy, maximal strength, and power are outlined for the novice, intermediate, and advanced athletes. Harries SK et.al (2012) has been defined that there is a fundamental relationship between strength and power improvements in sprinting performance that does not necessarily occur immediately after a period of strength training. As an athlete gets heavier, the energy cost of accelerating that mass also increases, as does the aerodynamic drag associated with pushing a wider frontal area through the air. Delecluse C et.al (1995) suggested that the sequencing of sessions differs among coaches, but the majority schedule strength training the day after sprint-specific training to avoid sore muscles when sprinting. Francis C et.al (2019) stated that heavy strength training is often combined with high volumes of sprint training at sub maximal intensity. When the competition season closer is the more emphasis on maximal velocity sprinting explosive strength and ballistic

exercises continued. In adaptation to this, no major discrepancies in sprint-related strength and power training recommendations can be observed between science and best practice when comparing these literature sources.

### **2.10. Tapering**

According to Pyne DB et.al (2009) Tapering refers to the marked reduction of total training load in the final days before an important competition. Using tapering means consist of a short-term balancing act, reducing the cumulative effects of fatigue, but maintaining fitness. Because tapering strategies and outcomes are heavily dependent on the preceding training load, it is often challenging to separate tapering from periodization and training programming in general. Based on many authors, a realistic performance goal for the final taper should be a competition performance improvement of about 2–3%.

Haugen T et.al (2018) suggested that based on individual performance variation data in elite sprinters, it is reasonable to expect smaller relative tapering effects for sprinting athletes. According to Pritchard HJ et.al (2016) the general scientific guidelines for a likely effective taper in strength- and power-related sports are a 2- to 3-week period incorporating 40–60% reduction from the training volume following a progressive non-linear format, while training intensity and frequency are maintained or only slightly reduced. Ritchie D et.al (2018) stated that the strategies employed by successful track and field are generally consistent with research.

Lee J (2019) provided that the preceding workout the last 6–8 weeks has been performed according to plan (no injuries or disease), the last extensive and high-intensive sprint session is performed 10 days prior to the most important competition of the year, then followed by easy sprint training sessions (low volume at 95% velocity) 8, 6, 4, and 2 days before competition. Stephen Francis suggests that for a slightly different approach, mainly decreasing the volume by 30% over the last 10 days before a major competition. His successful athlete, Asafa Powell, achieved world record performances in June as well as September.

### **2.11. Performance Development through Sports Training**

According to Peter J L Thompson (2009) Training is a systematic process with the objective of improving an athlete's fitness in a selected activity. This is a long term process that is progressive and recognizes the individual athlete's needs and capabilities. Training programs use

exercise or practice to develop the qualities required for an athlete's long term development. The training process can be planned because training follows certain principles. These principles of training need to be fully understood before the coach can produce effective long term programs. This is a particular type of training designed to improve fitness and abilities to perform in a given sport.

## **2.12. Nutrition for Athletic Performance**

### **2.12.1. Nutrition for the Sprint Training**

Burke & Cox, (2010) define as proper nutrition plays a vital role in maintaining the health of an athlete. Its effects may not be productive to the improvement of performance. Costill et al., (1976) stated that elite sprinters have muscles composed predominantly of fast-twitch fibres. Thus, success requires large, powerful muscles.

K. D. Tipton et al (2007) described the role of nutrition for increasing muscle mass and strength, as well as the potential for nutritional choices to influence competition day performance. Nutritional support for athletes is often considered for two general situations: training and competition. The nutrition certainly will influence muscle hypertrophy and this aspect of nutrition is usually the focus for sprinters. For sprint training, weight training to develop muscle mass is the primary form of training throughout the year. However, it is important to recognize that optimum mass may not equal maximum mass for a sprinter.

### **2.12.2. Nutrition for Racing**

K. D. Tipton et al (2007) discussed that the acute influence of nutritional intake for sprinting is not likely to be as great as for endurance events. The length of the race alone prevents a large influence from acute intakes. A typical competition day involves many heats and finals with variable amounts of waiting around in between and also during the time in between heats, athletes should stay hydrated but avoid over-drinking, maintain blood glucose levels, and avoid behaviors, including feeding, that may contribute to discomfort, particularly gastrointestinal discomfort. There is likely no common way to achieve these goals in every athlete. Marko T et.al (2014) defined as unlike long-distance running, sprint running performance from 60–400 m is not limited by muscle glycogen stores so there is no need for carbohydrate loading before the competition. Besides, pre-race intakes of proteins or fats are unlikely to result in an acute

improvement in performance. Therefore, sprinter's performance is more related to long-term dietary practices than the acute influence of nutritional intake. The major goal of the pre-competition food consumption of all athletes is to stay hydrated (but avoid overdrinking), maintain adequate blood glucose levels, and prevent gastrointestinal distress. Or Nutritional factors are also important for effective training. Masters sprinters may not be concerned about adequate energy intake from carbohydrates due to relatively low energy requirements of sprint training. However, combined sprint and strength training may increase protein needs and older sprinters should pay attention to quality protein consumption to aid in muscle recovery.

### **2.13. Professional Development of Coaching**

According to Stephen John Williams (2005) stated that Elite coaches consider aspects of sports science when preparing athletes for competition. Sports scientists conduct applied research and a had mental purpose of sports science research is to produce knowledge that helps improve the performance of elite athletes. Understanding how sports scientists can support coaching practice may be a task for both coaches and scientists. Coaches may value experience and practical knowledge acquired from participation in sport and from other coaches above knowledge that could be gained from sports science research. Further, a preference for practical coaching knowledge may reflect an undervaluing of the benefits of scientific knowledge.

#### **2.13.1. Perspectives of Elite Coaching**

A fundamental purpose of coaching at an elite level is the successful performance of elite athletes. The success of the athlete by which the elite coach is judged, regardless of other measures that may be used to assess coach effectiveness. The coach optimizes and maximizes the training provided for the athlete to push the limits, but not to overstretch an athlete's capacity.

#### **2.13.2. Practical Application of Sports Science Research**

Determining the focus of research is an ongoing issue for sports scientists. Technical personnel within sports groups are concerned that sports science research projects have practical applications for the needs of their particular sports. Various methods have been used to assess the use of sports science research in preparing athletes for competition and for identifying the sports science needs of particular sports.

#### **2.14. Roles and Responsibilities of a Coach**

Crisfield et al., (2003) defined as the key responsibilities of a coach are: identifying and fulfilling the aspirations of the performer improving performance through a sequential, progressive, challenging and structured training and competition program monitoring, reflecting upon and evaluating the efficacy of the program concerning the performer's aspirations creating a positive motivational environment both in training and competition creating a motivational environment that facilitates maintenance of involvement and maximizing potential in their chosen sport and It is the coach's responsibility to check the facility he or she is working at, account for player personal safety, and carry out regular risk assessments, as well as to have insurance and a first aid qualification.

According to Suntharalingam Thanuraj (2017), in the professional setting, a coach has his assistant staff which includes fitness specialists, trainers, and coordinators. The coach professionally focuses on physical fitness and enjoyment the coach focuses on the development of technical skills of the individuals or teams. Successful sports coaching generally involve sports expertise and tactics.

#### **2.15. Skills and Qualities of a Coach**

According to Johnson et al., (2011) coaches can play a critical role in preparing athletes with the ability to overcome mental obstacles and have the greatest amount of influence and responsibility for every aspect of the athletic program and also who show sufficient knowledge in the technical skills of sports movements are better able to teach athletes correctly and decrease the number of injuries from improper form and technique.

Paul E. Robinson (2010) discussed that coaches are multi-faceted, and these need to be developed over time. To the practical, vocational and scientific principles it provides the athletes of sports coaching with all the skills, knowledge and scientific background they will need to prepare athletes and sportspeople technically, tactically, physically and mentally and also With practical coaching tips, techniques and tactics highlighted throughout, in sports coaching, including the development of sports coaching as a profession.

According to Johnson et al., 2011,) Coaches who show sufficient knowledge in the technical skills of sports movements are better able to teach athletes correctly and decrease the number of injuries from improper form and technique and Hall, 2007; Hay, 1993) discussed that at high-

level sport, precise technique execution is critical, and the best performance improvement and adjustment comes from careful attention to detail. It is therefore crucial that the coach has a good understanding of biomechanics.

Crisfield et al., (2003) Described that skills and qualities may have already been developed through life and work experiences. The skill is in knowing when and how to diffuse the situation. A further skill that the coach needs to develop is the ability to observe, monitor, and accurately assess performance in training and competition. This is required because accurate feedback is required for the performer to improve their performance, and providing inviting feedback should form a major part of coaching practice. Although ideally, the coach should be referring the performer to a sports therapist and a nutritionist for this type of advice and these will not come easy, and will require some practice, but if the coach can get into good habits in the early stages of their career, it will facilitate their development.

### **2.16. The Impact Coaching has on Performance**

Paul E. Robinson (2010) discussed that a coach can work at different levels from the foundation (grassroots) to the high-performance coaching level and also on whether they are in a part-time or full-time coaching position. Coaches who have worked and who continue to work with high-performance athletes in the high-performance coaching environment find it very rewarding, but at the same time, there are significant demands on their time.

According to Barić & Bucik, (2009) the differences among coaching styles through the characteristics of personality, knowledge, experience, and motivation methodology, can directly influence the same characteristics in the athletes and who do not communicate or demonstrate poor communication skills are more likely to mold athletes who feel less competent on the playing field. The athletes of these coaches also tend to maintain a business relationship rather than growing a personal, dynamic relationship with the coach.

A study (Zourbanos, et.al (2010) found that positive coaching environments correlated positively with positive self-talk and Positive self-talk–cultivated by positive coaching relationships– that helps correlates with improved individual performance.

## **2.17. External Factors and Athletic Performance**

### **2.17.1. Hot Environment**

According to Siegel & Laursen, (2012), as an athlete exerts energy when exercising in hot environments, his or her core temperature will rise greater than if the individual was exercising at a moderate temperature. This effect may be a possible explanation for decreased athletic performance when environmental temperatures continue to rise, due primarily to excessive fluid loss and impaired thermoregulation in extreme environments.

Özgünen et al., (2010) stated that in warm environments, exercising induces a rise in core temperature, sweating rate, and progressive dehydration and Dugas, (2010) described that when a player exercised in an environment that created a core temperature greater than his or her accepted body temperature, the player's body innately anticipated an undesirable rise in core temperature. hot temperatures affect an athlete to show a decrease in performance by about 2-3% to account for a possibly dangerous rise in core temperature and also Marino et al., (2000) defined as the ability of an athlete to thermoregulate adequately depends on his or her body type.

### **2.17.2. Cold Environment**

Lindberg, et.al (2012) defined as Just as the hot environment can negatively impact performance, exercising in the cold environment has been found to influence performance as well. On the other way the major concern of exercising in the cold is the effect cold air has on the pulmonary system. Exercised induced bronchospasm can lead to a higher ventilation rate due to the constriction of the airways as a result of the dry and cold air being breathed in. This leads to a higher exertion and a decrease in performance. Even though in warm environments, heart rate decreases in cold weather, due to the body's attempt to retain heat through vasoconstriction. This can create inaccurate intensity level reading if athletes are trying to reach a certain heart rate, in which case studies suggest that they would be exercising at a greater intensity in the cold compared to normal temperatures when trying to reach the same heart rate. This extra exertion leads to decreased performance.

### **2.17.3. Sleep**

According to Fischer, et.al (2008) It is no secret that the body needs sleep to function at its highest level. Willis, (2009) stated that it is during the period of sleep that the body discards

unnecessary information from the brain, heals, and gains energy for the next day's activities. A good night's sleep is imperative to enhancing performance. According to Underwood (2010), the muscles need an appropriate amount of sleep to meet the demands of reflex and reaction impulses and the central nervous system controls every aspect of athletic performance, from firing the correct sequence of muscle contraction to reflexes and reaction, exact biomechanical movements to function of skills and according to Davenne, (2009) Athletes, in particular, need more sleep than the average relatively sedentary individual people. Oliver, et.al (2009) described that when athletes do not receive a full night of sleep, athletic performance decreases due to sleepiness. Researchers that studied after thirty hours of sleep deprivation, running performance during a five-mile run on a treadmill was reduced. Dement, (2005) discussed that researchers who performed a study in 2005 found that when athletes were allowed to sleep as much as they could, players experienced enhanced performances, better moods, and a decrease in fatigue compared to when customary sleeping habits were instilled. Craft, et.al (2003) An athlete may experience a wide range of emotions before the competition that can affect his or her performance./ Anxiety among an athlete is a feeling of perceived imbalance in his or her abilities and While moderate levels of anxiety about an approaching competition can improve skills and abilities, too much may comprise performance.

## **2.18. Psychology and the Coach**

According to Paul E. Robinson (2010) p135-145)) the coach must understand the sports psychologist because the coach has the ultimate responsibility of performance outcomes. There is a whole range of positives of working and enhancing the effectiveness of the performer and the coach working in the whole range of different contexts and scenarios, which helps him re-assess his working methods at all times.

### **2.18.1. Confidence and Confidence Enhancement Strategies**

Paul E. Robinson (2010) p135-145)) defined that Self-confidence can be a major issue in sports performance and the smallest thing can have an impact on a performer's self-confidence. There are many reasons why a performer may lack self-confidence, such as having far too high expectations of one's ability, which leads to the setting of unrealistic goals. The consequences of not achieving these goals could be loss of concentration and the creeping in of self-doubt, which could subsequently manifest as anxiety and uncertainty of purpose (Martens, 1987).

### **2.18.2. Concentration**

The sport requires the performer to concentrate for long periods in a dynamic and constantly changing environment. Different sports have different attention demands; for example, intense levels of concentration are required in sprinting, require a high degree of concentration because the potential for injury if the performer were to be distracted is high.

### **2.18.3. Motivation and Development of a Motivational Climate**

The coach should be an excellent motivator and a good understanding of how and why these strategies work, and how to engineer a successful motivational climate in training and competition. Weinberg and Gould, (2006, p. 52)). Two types of motivation, intrinsic and extrinsic. Being intrinsically motivated is doing the activity for its own sake and being extrinsically motivated is doing the activity for some form of reward or praise. They should try and reduce the too high expectations of performers to a more realistic level, and help the performer to understand that they are their own person, and making comparisons is illogical because they can never be the same as someone else.

## **2.19. Planning Training for the Sprints**

Izmir, (2014) defined that Planning training programs is not simply a question of planning a couple of weeks of training; initial plans should encompass several years' progression. All programs should be based on what has gone before. Long-term programs will be subject to changes due to factors which are more than likely outside the coach's control. Long-term isn't along planning detailed but may be divided in several parts. Planning may be a several years to achieve the athletes and coaches realistic goals. According to planning of the training, Identify the most important race and, coming back, decide the duration of the various phases of training and the other races.

### **2.19.1. Considerations When to Plan**

- 1) The talent of the athlete.
- 2) The age of the athlete. A youngster is likely to have a greater amount of success when at the older end of an age group than when at the other end. The coach should consider using the athlete's first year in an age group as a consolidation year where he "learns his trade." The year at the top of the age group could then be per iodized more towards competition success.

## **2.20. Facilities as Predictor of Sport Development in Sport performance**

This is a common knowledge today that the achievement of World class status in sports is a reflection of the development of a country status. Ojeme, (2000) explained that the gap between intended sports development objective becoming a World class sporting nations warrants the availability enough facilitates. If countries have a right quality and quantity sports facilities and equipments is an integral parts of sports development. In the developed world, sports, facilities and equipment of the appropriate standard are available of promote the athletes performance in the countries. Talabi (1998) described that most developing countries wish to arrive at the level of developed countries over night.

Ekpe (2011) suggested that, it is difficult to separate the standard of sports in a particular country from the standard of facilities available for the training of athletes. Much research works on facilities, and equipment, show that the areas are deficient and that sports management in the state and the country at large cannot supply effectively. Awosika, (1996) and (Aluko,1999) According to The availability of adequate equipment and facilities play a major role in sports development, It would not be important to achieve satisfactory results from athletes. Good sports programs can function at full effectiveness only when they are supported with effective equipment in good conditions.

Adamu (2002) stated that facilities and adequate provision of equipment have been identified as the major problems facing the athletes because they performed better with facilities abroad with those at home. Awoma (2005) stated that, provision of adequate facilities and equipment is as important as providing adequate incentive for the athletes. Good sports program can only functions at full effectiveness when they are supported with sufficient equipment in good conditions. The scarcity sporting facilities and equipment and supplies constitute a big cog in the wheel of success. It is fact that most athletes lack exposure to modern sophisticated infrastructures and facilities for training. Adisa (2004) expressed that athletes generally exhibit high sports achievement and encouragement due to the presence of adequate facilities and equipment.

## **CHAPTER-THRE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1. Research Design**

The main purpose of the study was to assess factors affecting the performance of short distance runners. This research was conducted with, qualitatively and quantitatively by using, frequency counts, and percentages. With a sample size of 69 athletes, 8 coaches' and 4 administrative participants by planning to obtain answers to research questions or problems.

#### **3.2. Research Methods**

The researcher used to conduct this research with descriptive survey methods, by suing both qualitative and quantitative research methods, including, survey research, primary data source, participant observation, and secondary data, questionnaires, and interviews. Burns and Grove (2003:201), define that descriptive research “is designed to provide a picture of a situation as it naturally happens”. This method is more appropriate to gather a variety of data related to the study and to analyze the data mixed quantitatively and qualitatively.

#### **3.3. Data Collection Instruments**

The researcher used three data collection instruments to gather information (questionnaires, observations, and interviews).

##### **3.3.1. Questionnaire**

Questionnaires are a suitable tool for gaining quantitative data. Based on this both close-ended and open-ended questionnaires were fulfilled by athletes and coaches. The questionnaires were prepared in the Amharic language to respondents of the study and then translated to English to make the analysis easy and clear for all readers.

##### **3.3.2. Observation**

Observation is a basic data collecting instrument, According to this non-participatory observation was conducted as to gather information during actual training times of sprinter athletes and coaches utilizing checklist by using Observation checklist quantifiers

### **3.3.3. Interview**

Interviews are more suitable for questions that require problems to obtain adequate information. To get rich and deep information structured interviews were conducted to club officials/management leaders only.

## **3.4. Source of Data**

Primary data and secondary sources were used as the instruments of data collection and the combination of the primary data and secondary sources of information that increase the credibility of the research findings.

### **3.4.1. Primary Data Source**

Primary data is the first and most immediate recording of a situation to express findings. Primary data can provide information about virtually any facet of the surroundings. With this regard, the primary data resources used in the research were coaches and athletes, questionnaires, office leader interviews, and observation.

### **3.4.2. Secondary Sources**

Using secondary data is making an assessment and gives quality or reliability to the finding. Therefore the researcher used internet websites, articles, journals, and books.

## **3.5. Method of Data Analysis**

The collected data were analyzed and presented qualitatively and quantitatively: by the methods of descriptive statistics such as SPSS (statistical package for the social science) version 20. By using frequency counts and percentage, after analysis the collected data the interpretation and discussion take place. Lastly summary, conclusion, and recommendation followed.

## **3.6. Data Collection Process**

Before starting to collect data the researcher identify research sites, asked their permission and determined the sample size of participants. Then started to take observation for the first step to gain start-up information during training times, secondly step site time and date to contact, to get and observe essential information's to determine and to distribute questionnaires to respondents. Thirdly interviews were conducted to club office leaders/managers, after conducted interviews; data collection completed finally started processing the collected data to analyze and to complete the research.

### **3.7. Method of Sampling**

#### **3.7.1. The Population of the Study**

There were a total of 83 athlete and 8 coaches and also 4 administrative respondents who participated in the study which is composed of 4 clubs.

#### **3.7.2. Sample Technique**

The total numbers of athletes were 83 and 8 coaches of those; the researcher selected 69 athletes from 4 clubs and 8 coaches. With a method of cluster sampling technique to select athletes, the researcher divides the sample population into sections that represent a population. Where in the members of the populations are selected in to heterogeneity segments and then the samples are selected at random from naturally occurring groups. Clusters are identified and included in a sample based on demographic parameters like sex, locations or based on their clubs and heterogeneity of populations i.e. 100m, 200m and 400m male and female in case of this sampling technique is selected to this research work and census sampling technique to select coaches, and administrative. Census sampling technique is where all members of the population are studied. Those coaches and administrative are small in number, therefore all population are under concern, to select athletes with the minimum sample size required by using Yamane (1967:886) formula  $n = \frac{N}{1+N(e)^2}$ . To the sampling size determination,  $n$ = sample size,  $N$ = total population, a 95% confidence level, and 5% precision. Sampling size determination each club No of athletes for questionnaires were selected as such way  $n/N = 69/83 = 0.83 = 83/1+83*0.2 = 69$  in this regarded short runners of defense athletics club have 33 athletes from those 28 athletes selected, Ethiopian bank athletics club have 22 athletes from those 18 athletes were selected, Federal Maremiya athletics club have 11 athletes from those 9 were selected and Ethiopian electric (EELPA) athletics club has 17 athletes from those 14 were selected.

Table 2 Sampling of the study

No	Items	Sex	No of athlete	Sampling size determination	Each club selected athletes
1	Defense athletics club	Male	20	20×0.83	17
		Female	13	13×0.83	11
2	Ethiopian bank athletics club	Male	13	13×0.83	11
		Female	9	9×0.83	7
3	Federal Maremiya athletics club	Male	7	7×0.83	6
		Female	4	4×0.83	3
4	Ethiopian electric (EELPA) athletics	Male	9	9×0.83	7
		Female	8	8×0.82	7

Source: Survey Data, 2020

### 3.8. Area of the Study

The study was focused on four athletics clubs found in Addis Ababa cite administration first division athletics clubs. The site and clubs were selected due to geographical proximity, and in 48th Ethiopian Regions and City Administrations Athletics Championships, 2018/19, the researcher was observed short distance athletes practical and running problems. In addition to this the most problematic regarding to this: Ethiopia has less participation in a short distance race in the world Athletics history and Ethiopia didn't register a good result in short distance competitions in the world Athletics history. More than to this Ethiopian sprinter athlete's time isn't improved from 1968 and 1971 until this year, on the contrary, the time decrease from year to year. Not only this comparatively Ethiopian sprinter athlete's race times are much less than African continental level and world record holder athlete times. On the other hand still, now considerable attention has been not given to short-distance athletes with concerning bodies or Ethiopian short distance athletes aren't get equal concentration as long-distance athletes. in case of this the researcher believes as there is a problem and by expecting as get better information about the problems and in the same extent proximity with fewer athletes and coaches expecting to get better information with an open mind and by expect their cooperation to make success the research.

### **3.9. Pilot Study**

Before taking data collection and prepared the main questionnaire the researcher takes some pilot study questions, to identify potential problems, test the language and substance of questions, and inform the researcher whether changes to the questionnaire guide are needed. In the case of this, 10 respondents who selected from the group then distributed to the respondents who were not part of the sample study. Then, the actual questionnaires designed based on the feedback of the pilot.

### **3.10. Reliability and Validity**

#### **3.10.1. Reliability**

Reliability test – Cronbach's Alpha is conducted to the data study, by using SPSS software, version 20. Calculating the Cronbach alpha coefficient of a scale used indicator of internal consistency with the ideal Cronbach alpha coefficient being over 0.7. with this regard, Cronbach's alpha coefficient scores of over for the first time it becomes 0.6 this indicated that the questionnaire was poor the researcher distributed for the second time by improving items and contents then have got 0.706 it becomes questionable, but still it wasn't reliable then continued for third time then have got 0.954 According to Lee Cronbach in 1951 to provide a measure of internal consistency of a test is expressed with a number between 0 and 1. In this case,  $\alpha = 0.954$ , which shows the questionnaire is reliable.

#### **3.10.2. Validity**

The questionnaires which were prepared were examined by adviser and experts purpose to avoid errors related to language, ideas, and contents and to validate the frame items. Think of it this way: after getting feedback and suggestion from adviser the researcher had modified and determined whether it is valid to a certain conclusion for the significant purpose of the study had been continued.

## CHAPTER-4

### PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

#### 4.1. Background information of the Respondents

Table 3 Demographic Characteristics of Respondents

No	Variable	Alternatives	Frequency	Percentage
1	Gender	Male	41	59.4
		Female	28	40.6
2	Age	30-33	30	43.5
		28-29	22	31.9
		27-25	13	18.8
		24-22	4	5.8
3	Educational background	5-8	20	29
		9-10	25	36.2
		11-12	15	21.7
		College, or university Student	6	8.7
		College, or university complete	3	4.3

Source: Survey Data, 2020

The results displayed in table 3 item1 indicate that respondents responses to the research questionnaire of this study. The result revealed that 41 (59.4%) of the respondents are male and 28(40.6) are females and from this table item 2, The result showed that 30(43.5%) of the respondents they exist between the age of 30-33, 22 (31.9%) of athletes have existed between the age of 28-29, 13(18.8%) exists between the age of 25-27, 4(5.8%) of athletes have existed between the age 22-24. Regarding educational status as implied from this table Item 3, 20(29%) of respondents' responses indicate that they are elementary level, 25(36.2%) respondents replied that they are at the high school level, 15(21.7%) of respondents are grade 11 and 12 levels, 6 (8.7%) respondents are complete college or university student, 3(4.3%) responses indicates that they are college or university complete.

#### 4.2. Analysis Close-Ended Questionnaires that Were Collected from Athletes

Table 4 Questionnaires to Know Factors Affecting Athletes' Performance and Their Responses

No	Variable	Alternatives	Frequency	Percentage
1	You sleep more hours a day after performing a training	Strongly agree	7	10.1
		Agree	10	14.5
		Somewhat agree	11	15.9
		Disagree	41	59.4
2	you get sufficient salary from the club	Somewhat agree	20	29
		Disagree	49	71
3	the starting ability influences the sprint performance result	Agree	9	13
		Somewhat agree	20	29
		Disagree	40	58
4	when you join the club you selected based on norms and on your talent	Somewhat agree	12	17.4
		Disagree	30	43.5
		Strongly disagree	27	39.1

Source: Survey Data, 2020

As indicated from table4 item1, 7(10.1%) responses indicated that strongly agree they sleep more hours a day after performing a training, 10 (14.5%) of responses indicated that agree they sleep more hours a day after performing a training, 11(15.9%) of responses show that somewhat agree they sleep more hours a day after performing training, and 41(59.4%) responses indicated that strongly disagree they aren't sleeping more hours a day after performing training.

Table 4 item 2, 20(29%) respondents implied that somewhat agree they get sufficient salary from the club, and 49 (71%) responses indicate that disagree they don't get sufficient salary from the club and From this table item3, 9(13%), respondents replied that Agree on the starting ability influences the sprint performance result, 20(29%), respondents' replied that somewhat agree on the starting ability influences the sprint performance result and 40 (58%) respondents replied that disagree the starting ability isn't influences the sprint performance result and From table4 item4, 12(17.4%), respondents replied that somewhat agree athletes join to the club selected based on norms and their talent, 30(43.5%) responses implied that disagree they aren't selected based on norms and on their talent, 27(39.1%) of responses indicated that strongly disagree athletes aren't selected based on norms and their talent

Table 5 Questionnaires to Assess Is Their Nutrition supplied by the club to athletes After Training to Improve Sprint Performances and Their Responses

No	Variable	Alternatives	Frequency	Percentage
1	athletes get nutrition access from the club	Strongly agree	33	47.8
		Strongly disagree	36	52.2
2	To be effective in sprint running nutrition has high impact to improve sprint performance	Strongly agree	40	58
		Agree	18	26.1
		Somewhat agree	6	8.7
		Disagree	5	7.2
3	Clubs give nutrition access during at the competition times	Strongly agree	50	72.5
		Disagree	19	27.5
4	You select to get supplying nutrition at a time of training rather that during at the competition time	Strongly agree	38	55.1
		Agree	31	44.9

Source: Survey Data, 2020

From table5 item1, the respondents' responses indicated that 33(47.8%) strongly agree athletes get nutrition access from the club and 36(52.2%) respondents replied that strongly disagree athletes don't get food access from the club

From this table item2, 40(58%), respondents responses indicated that strongly agree to be effective in sprint running any kind of nutrition has high impact to improve sprint performance, 18(26.1%) respondents replied that agree to be effective in sprint running nutrition has high impact to improve sprint performance, 6(8.7%) respondents responses show that somewhat agree to be effective in sprint running nutrition has high impact to improve sprint performance, and 5(7.2%) of respondents responses indicated that disagree to be effective in sprint running nutrition hasn't high impact to improve sprint performance.

From this table item3, 50(72.5%) of respondents replied that strongly agree clubs give nutrition access during the competition times and 19(27.5%) respondents replied that disagree clubs don't give nutrition access during the competition times.

Lastly from this table item4, 38(55.1%) respondents replied that strongly agree athletes select to get supplying nutrition at a time of training rather than during at the competition time, 31(44.9%) respondents implied that agree on athletes select to get supplying nutrition at a time of training rather than during at the competition time.

Table 6 Questionnaires Refer to Identify Athletes Taking Training Are interesting or Not and Their Responses

No	Variable	Alternatives	Frequency	Percentage
1	During each day training sessions you perform similar types of training	Strongly agree	37	53.6
		Agree	21	30.4
		Strongly disagree	11	15.9
2	you perform training for long time in each training day	Strongly agree	5	7.2
		Agree	48	69.6
		Somewhat agree	11	15.9
		Disagree	5	7.2
3	The training that you perform have progressiveness in intensity and load from training to training	Strongly agree	7	10.1
		Agree	10	14.5
		Somewhat agree	10	14.5
		Disagree	30	43.5
4	Including technical training is necessary in each training session	Strongly disagree	12	17.4
		Agree	12	17.4
		Somewhat agree	20	29
5	Performing strength training have great role to improve sprint performance.	Disagree	37	53.6
		Agree	7	10.2
		Somewhat agree	22	31.9
		Disagree	30	43.5
6	you know the training purpose of each day	Strongly disagree	10	14.5
		Somewhat agree	5	7.2
		Disagree	10	14.5
7	trainings that you performed are differentiated based on your training ability and training age	Strongly disagree	54	8.3
		Somewhat agree	24	34.8
8	You started training above the age of 20	Disagree	45	65.2
		Strongly agree	27	39.1
		Agree	20	29
		Somewhat agree	15	21.7
		Disagree	2	2.9
		Strongly disagree	5	7.2

Source: Survey Data, 2020

Table 6 item1: 37(53.6%) respondents replied that strongly agree during each day training sessions athletes perform similar types of training, agree 21(30.4%) of respondents 'implied that during each day training sessions athletes perform similar types of training, and 11(15.9%) respondents' replied that strongly disagree during each day training sessions athletes don't perform similar types of training and From this Item2, 11 5(7.2%) of responses indicated that strongly agree athletes perform training for a long time in each training day, 48(69.6%) answers show that agree athletes perform training for a long time in each training day, 11(15.9%) responses as shows that somewhat agree athletes perform training for a long time in each training day and 5(7.2%) of respondents' replied that disagree as they aren't perform training for a long time in each training day

From this table item3, 7(10.1%) respondents' replied that strongly agree the training that athletes performed have progressiveness in intensity and load from training to training, agree 10(14.5%) of replied that the training athletes performed have progressiveness in intensity and load from training to training, somewhat agree 10(14.5%) respondents' replied that the training athletes performed have progressiveness in intensity and load from training to training, 30(43.5%) replied that disagree the training athletes performed haven't progressiveness in intensity and load from training to training and 12(17.4%) respondents implied that strongly disagree the training athletes performed haven't progressiveness in intensity and load from training to training and From this table item 4, respondents' replied that 12(17.4%) agree including technical training is necessary in each training session, somewhat agree 20(29%) respondents' implied including technical training is necessary in each training session and 37(53.6%) of responses indicated that disagree including technical training isn't necessary in each training session.

From this table Item5, the respondents' response indicates that 7(10.1%) agree as Performing strength training have a great role to improve sprint performance, 22(31.9%) of respondents' response indicated that somewhat agree to perform strength training has a great role to improve sprint performance and 30(43.5%) respondents' responses indicated that disagree performing strength training haven't great role to improve sprint performance and 10(14.5%) of respondents' replied that strongly disagree performing strength training hasn't great role to improve sprint performance and From this table item6, respondents' replied that 5(7.2%) somewhat agree

athletes know the purpose of each day training, 10(14.5%) replied that disagree athletes don't know the purpose of each day training, 54(78.3%) replied that strongly disagree athletes don't know the purpose of each day training.

From Table 6 Item7, 24(43.8%) respondents' replied that somewhat agree the athletes training are differentiated based on their training ability and training age, 45(65.2%) of respondents responses indicate that disagree the athletes training aren't differentiated based on their training ability and training age and from his table item 8, 27(39.1) the respondents' responses show that strongly agree athletes started training above the age of 20, 20(29%) of answers show that agree athletes started training above the age of 20, 15(21.7%) answer indicated that somewhat agree athletes started training above the age of 20, 2(2.9%) responses implied that disagree athletes don't start training above the age of 20 and 5(7.2%) answers indicated that strongly disagree athletes don't start training above the age of 20.

Table 7 Questionnaires to Assess whether Athletes Taking Training with coaches or not and Their Responses

No	Variable	Alternatives	Frequency	Percentage
1	coaches use a method to sustain your performance when the competition day reaches	Somewhat agree	20	29
		Disagree	22	31.9
		Strongly disagree	27	39.1
2	your coach have high performance to give scientific training to sprinter athletes	Agree	8	11.6
		Somewhat agree	19	27.5
		Disagree	37	53.6
		Strongly disagree	5	7.2
3	The method and style of that your coaching follow is interesting tos athletes	Agree	10	14.5
		Disagree	30	43.5
		Strongly disagree	29	42
4	your coach motives you to work hard to improve your performance	Somewhat agree	16	23.2
		Disagree	35	50.7
		Strongly disagree	18	26.1
	your relationship with your coach is good	Agree	10	14.5
		Somewhat agree	19	27.5
		Disagree	40	58

Source: Survey Data, 2020

From table7 item1, 20(29%) the respondents' response indicated that somewhat agree coaches use a method to sustain athletes performance when the competition day reaches, 22(31.9%) responses shows that disagree coaches don't use a method to sustain their performance when the competition day reaches and 27(39.1%) indicated that strongly disagree coaches don't use a method to sustain their performance when the competition day reaches.

From table7 Item2, responses indicated that 8(11.6%) agree coaches have high performance to give scientific training to sprinter athletes, 19(27.5%) respondents replied that somewhat agree coaches have high performance to give scientific training to sprinter athletes, 37(53.6%) responses show that disagree coaches haven't a high performance to give scientific training to sprinter athletes and 5(7.2%) respondents replied that strongly disagree coaches haven't high performance to give scientific training to a sprinter.

From table7 Item3, 10(14.5%) responses indicated that agree a method and style of their coaching is suitable for athletes, 30(43.5%) respondents replied that disagree a method and style of their coaching isn't suitable for athletes and 29(42%) replies indicated that strongly disagree a method and style of their coaching isn't suitable for athletes.

From table7 Item4, 16(23.2%) somewhat agree respondents replied that athletes coach motives to work hard to improve their performance, 35(50.7%) responses indicated that disagree athletes coaches don't motives to work hard to improve their performance, 18(26.1%) respondents replied that strongly disagree athletes coaches don't motives to work hard to improve their performance

From table7 Item5, 10(14.5%) responses indicated that agree their relationship is good with coaches, 19(27.5%) responses indicate that somewhat agree their relationship is good with coaches and 40(58%) responses indicated that disagree their relationship aren't good with coaches.

Table 8 Questionnaires to Understand whether Environmental Related Factors Affect Athletes' Performance or Not and Their Responses

No	Variable	Alternatives	Frequency	Percentage
1	performing training in a hot temperature has positive impact to improve sprint performance	Agree	37	53.6
		Somewhat agree	15	21.7
		Disagree	10	14.5
		Strongly disagree	7	10.1
2	when you perform training in cold environment it enhances your performance	Strongly agree	43	62.3
		Agree	20	29
		Somewhat agree	6	8.3
3	Addis Ababa Weather condition is suitable for sprinting training.	Strongly agree	25	36.2
		Agree	16	23.2
		Disagree	28	40.8
		Strongly disagree	20	29
4	You accept that the Weather condition you performed training out of Addis Ababa that affects your sprint performance	Strongly agree	20	29
		Somewhat agree	25	36.2
		Strongly disagree	24	34.2

Source: Survey Data, 2020

From table8 item1, 37(53.6%) respondents replied that agree to perform training in a hot temperature has impact to improve sprint performance, 15(21.7%) respondents implied that somewhat agree to perform training in a hot temperature has impact to improve sprint performance, 10(14.5%) respondents responded that disagree performing training in a hot temperature hasn't impact to improve sprint performance and 7(10.1%) responses indicate that strongly disagree performing training in a hot temperature hasn't impact to improve sprint performance and From this table Item2, 43(62.3%) replies indicated that strongly agree to perform training in cold environment enhances performance, 20(29%) respondents implied that agree to perform training in cold environment enhances performance and 6(8.3%) respondents responded that somewhat agree to perform training in the cold environment doesn't enhance performance.

From table 8 Item3, 25(36.2%) of responses indicated that strongly agree Addis Ababa Weather condition is suitable for sprinting training, 16(23.2%) responses implied that agree Addis Ababa Weather condition is suitable for sprinting training, 28(40.8%) respondents responded that disagree Addis Ababa Weather condition isn't suitable for sprinting training, 20(29%) respondents responded that strongly disagree Addis Ababa Weather condition isn't suitable for

sprinting training, and From this table item4, 20(29%) respondents replied that strongly agree athletes accept the weather condition they were performed training out of Addis Ababa that affects their sprint performance, 25(36.2%) respondents responded that somewhat agree athletes accept the weather condition they were performed training out of Addis Ababa that affects their sprint performance, 24(34.2%) respondents replied that strongly disagree they accept the weather condition they were performed training out of Addis Ababa that affects their sprint performance.

Table 9 Psychology Related Factors and Responses of Respondents During Competition

No	Variable	Alternatives	Frequency	Percentage
1	when the competition time approaches you usually exposed to frustration	Strongly agree	40	58
		Agree	20	29
		Disagree	9	13
2	you fill anger before the competition time	Strongly agree	40	58
		Agree	18	26.1
		Disagree	11	15.9
3	Your Self-confidence isn't decrease when the competition approaches	Agree	8	11.6
		Somewhat agree	18	26.1
		Disagree	20	29
		Strongly disagree	23	33.3
4	You lack or loss Your concentration from the starting position during competition time	Strongly agree	25	36.2
		Agree	15	21.7
		Somewhat agree	18	26.1
		Disagree	11	15.9
5	You have good personality commitment to training	Agree	20	29
		Somewhat agree	6	8.7
		Disagree	23	33.3
		Strongly disagree	20	29

Source: Survey Data, 2020

From table 9 item1, 40(58%) respondents replied that strongly agree they are exposed to frustration when the competition time approaches, 20(29%) respondents replied that agree they

are exposed when the competition time approaches and 9(13%) of response shows that disagree they aren't exposed to frustration when the competition time approaches. From this table item2, 40(58%) respondents replied that strongly agree they fill anger before the competition time, 18(26.1%) agree respondents implied that they fill anger before the competition time and 11(15.9%) respondents replied that disagree they aren't filled anger before the competition time.

From table 9 Item3, 8(11.6%) respondents responded that agree their Self-confidence aren't decrease when the competition approaches, 18(26.1%) respondents replied that somewhat agree their Self-confidence aren't decrease when the competition approaches, 20(29%) responses show that disagree their Self-confidence decrease when the competition approaches and 23(33.3%) respondents replied that strongly disagree their Self-confidence decrease when the competition approaches and From this table item4, 25(36.2%) responses indicated that strongly agree they loss or lack their concentration from the starting position during at competition time, 15(21.7%) responses show that agree they loss or lack their concentration from the starting position during at competition time, 18(26.1%) somewhat agree responses show that the loss or lack their concentration from the starting position during at competition time and 11(15.9%) respondents responded that disagree they aren't loss or lack their concentration from the starting position during at competition time.

From table 9 item5, 20(29%) responses replied that agree they have good personality commitment to training, 6(8.7%) responses show that somewhat agree they have good personality commitment to training, 23(33.3%) respondents replied that disagree they haven't good personality commitment to training, and 20(29%) of respondents replied that strongly disagree they haven't good personal commitment to training.

Table 10 Questionnaires to Identify Availability of facilities for Sprinters and Their Responses

No	Variable	Alternatives	Frequency	Percentage
1	You have Sufficient Facilities or Equipment for Training	Strongly agree	8	11.6
		Agree	11	15.9
		Disagree	37	53.6
		Strongly disagree	13	18.8
2	The club has his own gymnasium center	Strongly disagree	69	100
		Disagree	15	21.7
		Strongly disagree	54	78.3
3	The club accessed training equipments on time at the beginning of starting training	Disagree	15	21.7
		Strongly disagree	54	78.3
4	The training supplies that the club gives to you is comfortable to training	Somewhat agree	20	29
		Disagree	24	34.8
		Strongly disagree	25	36.2

Source: Survey Data, 2020

From table10 item1, 8(11.6%) respondents responded that strongly agree they get sufficient Facilities or equipment access to training, 11(15.9%) respondents replied that agree they get sufficient Facilities or equipment access to training, 37(53.6%) respondents replied that disagree they aren't getting sufficient Facilities or equipment access to training, and 13(18.8%) respondents replied that strongly disagree they aren't getting sufficient Facilities or equipment access to training and From this table item2, 69(100%) responses implied that strongly agree the club hasn't his gymnasium center.

From table10 item3, 15(21.7%) respondents replied that disagree training equipment aren't accessed on time, in the beginning, starting training and 54(78.3%) respondents implied that strongly disagree training equipment aren't accessed on time at the beginning of starting training and from this table item 4, 20(29%) responses indicated that somewhat agree training supplies that the club gives to them are comfortable to training, 24(34.8%) responses indicated that disagree the training supplies that the club gives to them aren't comfortable to training and

25(36.2%) respondents replied that strongly disagree the training supplies that the club gives to them aren't comfortable to training

#### 4.3. Athletes Response from Open-Ended Questionnaires

- Open-ended questions prepared to indicate solutions to improve sprinters performance the respondents replied that ways to improve: concerned bodies better give the necessary attention to the event; the training is better continuously without a breaking method, coaches, concerning bodies and federations, working cooperatively.
- Open-ended questions prepared to assess what factors influence sprinters performance the respondents replied that Training field problem, peoples attitude about the discipline, loss of concentration with pertinent bodies, less or lack of competition opportunities, low coaches performance, insufficient salary payment, less availability of training facility or equipment, less athlete and coach ration, less time given to the technical training or insufficient technical training in a weak.
- Open-ended questions prepared to know training programs, the respondents replied that a few athletes cover the given training program properly.

#### 4.4. Questionnaire that Were Prepared for Coaches

Table 11 Demographic Characteristics of Coaches'

No	Item	Alternatives	Frequency	Percentage
1	Gender	Male	4	50
		Female	4	50
2	Educational back ground	ma/MSc/med/second, agree	7	87.5
		college diploma, disagree	1	12.5

Source: Survey data

From table11 item1, the researcher intended to participate, 8 coaches, 4(50%) male, and 4 (50) female were participating in the questionnaire and from this table item2, 7 (87.5%) indicates that strongly agree coaches have MSC, 1(12.5%) agree on shows that college diploma.

Table 12 Coaching Qualification and Experience

No	Item	Alternatives	Frequency	Percentage
1	you have daily and yearly training plan	strongly agree	6	75
		disagree	2	25
2	you have evaluate the performance of your athlete	strongly agree	3	37.5
		Strongly Disagree	5	62.5
3	athletes performance have improved after you started to give training	Somewhat agree	3	37.5
		Disagree	5	62.5
4	You analysis the athletes profile of performance	Disagree	8	100
5	You prepare each days training program in each day	Somewhat agree	3	37.5
		Disagree	5	62.5
6	coaches have assistance staff members	Strongly Disagree	8	100
7	You have done a researcher works related to short distance after you enjoyed to this club	somewhat agree	2	25
		disagree	6	75

Source: Survey Data, 2020

From table12 item 1, 6(75%) respondents responded strongly agree they have daily and yearly training plan and 2(25%) respondents replied that disagree, and from this table item 2, 3(37.5%) respondents implied that strongly agree they evaluated the performance of the athletes and 5(62.5%) of respondents replied that they weren't evaluated the performance of athletes and From this table items 3, 3(37.5%) respondents responded that somewhat agree athletes performance have been improved after they have started to give training and 5(62.5%) responses indicated that disagree, athletes, performance haven't been improved after they have started to give training.

From table12 item 4, 8(100%) respondents responded that they weren't analysis the athletes' profile of performance and from this table item 5, 3(37.5%) responses indicated that somewhat agree they prepare each days training program and 5(62.5%) respondents implied that disagree they aren't prepare prepared each day's training program.

From this table item 6, 8(100%) responses indicated that haven't assistance staff members and from this table item 7, 2(25%) of respondents implied that somewhat agree they have done related researches and 6(75%) responses indicated that disagree they weren't done related researches.

#### **4.5. Managers Response from Interview**

Interviews prepared to club managers or offices leaders, respondents responded that he/she isn't graduated with sports science field, but they responded that they have knowledge of what this sport needs, the club doesn't have enough budget or finance, to participate at national level doing cooperatively that will help to reach success, and taking experiences from developed countries, give coaches professional development courses will be taken as a solution. the respondents replied that they don't exactly know the previews work, but from two place only one time and from others two, two times researches were done concerning to this discipline and also the clubs main objective are to participate with different competitions at national and international level and create opportunities to athletes to participate with different competitions as respondents responded.

#### **4.6. Coaches Open Ended Questionnaires Responses**

- ✓ Questionnaires related to training plan respondents' replied that they were planning annual plans by considering all competitions seasons, and by including all preparation parts
- ✓ Open-ended questions related to athletes training monitoring system respondents responded that they monitor by observing the athletes' facial expression, by listening to the breathing system and if they aren't complete the given time.

#### **4.7. Analysis of Data Collected from Observations**

Data obtained from observation, as mentioned in the methodology part, a non-participatory observation was done. The observation checklist includes the activities of both athletes and coaches. Standing from all observation the researcher summarized as following:

The place that athletes do training isn't comfortable regarding observing athletes in all directions whether they are doing properly or not and also to do training with remarkable tracks in a measurable distance. Not all coaches a few coaches aren't to come to the training place lately.

On the other said in a better way athlete arrives in a good manner on time to the training place. Clubs have transportation access to go to training this is very good and it should be sustained.

Clubs haven't their gymnasiums they do with renting and also they haven't their gym trainer. There is a gym trainer that gives training in gym house, but he/she is a general fitness trainer from that house, in case of this the trainer doesn't give specific training to athletes purposively, but sprinter athletes' need special training that related to their field that supports to improve their performances

When Athletes do training from the field and at the gym they weren't as such fillings good, and a few coaching hold coaching agenda, but they aren't using it and also a few coaches hold annually and weekly plans, but the objective isn't related or much with daily plans.

During the training time, the coaches aren't analyzed, give suggestions and corrections that they see faults in the training and the interactions between the coach and athletes aren't as such having a good relationship and also as such bad. The researcher observes three times the training coaches don't hold the athletes' training profile and their follow up to all athletes during the training time isn't good.

#### **4.8 Discussion**

Research questionnaires prepared related to factors affecting sprint performance with close-ended questionnaires, as indicated from the table (4) in data presentation, 41(59.4%) respondents replied that they disagree they aren't sleeping more hours a day after performing training. On the contrary to the respondents' response, an athlete after training should get enough sleep is crucial for athletic performance and should sleep about an hour extra. To this idea according to Oliver, et.al (2009) when athletes do not receive a full night of sleep, athletic performance decreases due to sleepiness and according to Willis, (2009) A good night's sleep is imperative to enhancing performance. 49(71%) responses indicated that disagree they don't get sufficient salary. less incentive affects/ brining impact on the successiveness of the athletes' sprint performance. In line with this idea according to Aluko, (1999) Athletes have to realize that improved performances and development of special skills which can earn them better incentives. 40(58%) respondents replied that disagrees doesn't influence the sprint performance result, here is that it has a great impact from the result of short distance races. In line with this idea (Čoh & Tomažin, 2008) the

start of the sprint and start acceleration are the first two factors of sprint speed with which the athlete tries to achieve maximum speed.

The respondents' responses about nutrition's 50(72.5%) of respondents replied that strongly agree that clubs give nutrition access during the competition times. if it will before or after training, it brings a change to the athletes' performance. This according to K. D. Tipton et al (2007) acute influence of nutritional intake for sprinting is not likely to be as great as for endurance events. The length of the race alone prevents a large influence from acute intakes and according to Marko T et.al (2014) pre-race intakes of proteins or fats are unlikely to result in an acute improvement in performance. The major goal of the pre-competition food consumption of all athletes is to stay hydrated (but avoid overdrinking), maintain adequate blood glucose levels, and prevent gastrointestinal distress.

Coach performance-related questions and responses, 45(65.2%) respondents responded that disagree with the training that athletes performed aren't differentiated on their training ability and training age. If the training isn't given by differentiated based on individual specific training it affects athletes' performance. In convent to this according to Haugen et al. (2018), sports training is individual-specific: The needs of every individual for performing in a particular sport are different from those of another. If we take the example of the sprint event, even a small difference in time and speed or distance decides the performance record, victory, or defeat. This is, therefore, necessary to identify the individual potential during the training. 22(31.9%) responses show that disagree and 27(39.1%) indicate that strongly disagree coach doesn't use a method to keep the performance of the athlete when the competition day reaches. If it isn't it has said the effect on athletes' performance. To this convention According to Pyne DB et.al (2009) use tapering is important to the marked reduction of total training load in the final days before an important competition and also According to Haugen T et.al (2018) individual performance variation data in elite sprinters, it is reasonable to expect smaller relative tapering effects for sprinting athletes. 37(53.6%) responses show that disagree and 5(7.2%) replied that they strongly disagree they haven't trust in their coaches' performance to give scientific training to sprinter athletes. this is another factor that affects the athletes' performance. Inline to this according to Johnson et al., (2011) Coaches who show sufficient knowledge in the technical skills of sports movements are better able to teach athletes correctly and decrease the improper form and

technique and also (Hall, 2007; Hay, 1993) at high-level sport, precise technique execution is critical, and the best performance improvement and adjustment comes from careful attention to detail. It is therefore crucial that the coach has a good understanding of biomechanics. Based on Paul E. Robinson (2010) coaches must have practical coaching tips, to the practical and scientific principles that underpin the sports coaching process.

The respondent's response about facility 37(53.6%) respondents replied that disagree and 13(18.8%) of respondents replied that they strongly disagree they don't get sufficient facilities and equipment. According to Awoma (2005), adequate facilities and equipment are as important as providing an adequate incentive for the athletes. Good sports programs can only function at full effectiveness when they are supported with sufficient equipment in good conditions. The scarcity of sporting facilities and equipment and supplies constitute a big cog in the wheel of success.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter deals with the summary, conclusion, and Recommendation of the study based on the results of the major findings.

#### 5.1. Summary

The purpose of this research is to assessing factors affecting the performance of short distance runners with descriptive survey methods. As a result of data analysis athlete's and coaches' questionnaire, non-participatory observation, and also management or leaders interview the researcher identified the following major findings.

- Different factors affect the athletes' performance externally which greatly impacts the athletes' performance. Running track, sleeping problem, different psychological factors, coach and athlete relationship, lately starting training age, fewer competition opportunities and less incentive to athletes
- Doing similar types of training, doing training without differentiated based on their training status, and for a long time rather than doing training that modulate large and powerful muscles hypertrophy training.
- Coaches don't use methods to sustained/ persistence performance when the competition day reaches, doing training without progressiveness of intensity and load
- Giving less talent selection methods to select athletes
- Lack of/fewer nutrition accesses before and after training. On the contrary, a club prepares or gives nutrition to athletes during competition times.
- Lack of knowledgeable/ qualified coaches that should give training by differentiating limitations/gaps with research and scientific training and coaches haven't assistant staff members ( as fitness trainer, physician, psychologist, and coordinators.
- Scarcity of sporting facilities and equipment supplies to training and trainers.
- Getting to training without identify/analysis the athlete's training background or exercise history (training that occurred before he or she began a new or revised program),

## 5.2. Conclusions

In light of the objectives of the study the researcher concludes the following points:

- factors affect athletes performance during training and competition times are (lack of effective & individualized training(monotonous types of training, doing training for a long time /inappropriate training and no future improvement methods, less competition opportunity, less incentive, un scientific athlete selection method, different psychological related factors before, and during competition times, different environmental related factors, absences of coach assistance, less technical training a week, less athlete and coach rations, lack of giving attention to the discipline.
- Factors affecting to improve athletes performance were, lack of sufficient and balanced diet after training i.e. more than half of athletes don't get food access from the club, clubs give nutrition access during the competition times rather than before and after training.
- Factors related to coach qualification are, low coach performance to give scientific training to sprinter athletes, un comfortable coaching method and style to athletes, un motivated coaching system to perform hardly athletes, week coach and athletes relationships, lack of well-prepared gym trainer concerning to athletics specific training, lack of use balancing methods when the competition time reaches to sustain athletes performances
- Factors related to training facility and equipment supply, lack of their own gymnasium and lack of basic facility or scarcity of sports facilities and equipment supplies to training, equipment's aren't accessed on time at the beginning of starting training. Based on the findings all those have impact on the athletes'performance.

## 5.3. Recommendations

The following recommendations are forwarded to improve the athletes' performance:

- During this time all clubs doing exercise three times a week. Therefore it is better to improve the training days from 3 days a week to more.
- Athletes get into competition without getting enough training. In the case of this athletes aren't well performed and well achieved, because they aren't getting enough training this leads to early performance deterioration and injury. Therefore it is better athletes do training rightly before participating in different competitions.

- The training program is programmed without expecting the athlete's status quo that brings no change in performance improvement. Therefore when the training program planned it should be better to include the athletes' current performance and the globalization of the season and also the scientific facts.
- From all four clubs only defense athletics clubs have living camp and food/nutrition access, but the remaining three clubs whether they haven't paid good incentives or living camp. Therefore as much as possible clubs better pay enough incentives to athletes and coaches.
- Almost all clubs haven't their training field, they do by renting track or running fields. Therefore concerning bodies better give attention to this discipline and if it is possible organizations who have running track better allow to athletes without renting or allow freely to training
- As indicated from the finding coaches haven't fully trusted with their athletes. Therefore coaches better strengthen their relationships' with their athletes to gain trust and to know their gaps, and also better improve their coaching status with different perspectives. In these constraints. Sports commission should do more solutions. allow coaches to gain more scientific trainings and also by invite from the successes countries in those discipline coaches to share experience and knowledge or knowledge transformation
- Concerning bodies and elite coaches should do from youth by finding talented areas and talented youth athletes
- Doing cooperatively is better to succeed in those discipline i.e. coaches haven't assistant staffs members, give gym training, give psychological training to improve the athletes mental status, who select athletes based on the scientific way or the criteria of talent identification process a coach he/she select athletes with un scientific way it may be in a biased.
- Clubs hold athletes during the competition times at the hotel and give nutrition access. Rather it is better before, and after training, because it solves problems in a sustained way.
- Training facilities supplies limitation are major factors. facilities and equipment supplies are better clubs themselves and the sports commission.

- Elite coaches currently doing from athletes who they have come with their effort, but it is better to go and do down by searching talented youths athletes and athletic federations better put it as obligatory

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**Appendixes**  
**ADDIS ABABA UNIVERSITY**  
**College of Natural Science**  
**Department Of Sport Science**

**Questionnaire to be filled by Athletes**

Dear athletes the main objective of this questionnaire is to assessing factors affecting on the performance of short distance runners in the case of four 1<sup>st</sup> division athletics clubs in Addis Ababa city administration for partial fulfillment of my MSC in A.A.U

Therefore your willingness, good cooperation and genuine response is curial to the success of this study .Hence, you are kindly requested to give your response confidentiality. Saying these, I would like to extend my cordial gratitude for your cooperation to fill the questionnaire. The information's collected will not be used for any other purpose and it will be confidential. The questionnaire is not by any means to evaluation of the athlete's knowledge so I humbly request you to give a true and precise response.

First of all I would like to thank you for your willingness to fill this questionnaire.

**Note**

- No need of writing your name.
- Put this symbol “√” in the given box and there are some open ended questions so write your answers on the space provided.
- Rating: 5= Strongly agree, 4 = Agree, 3 = somewhat agree, 2 = Disagree, 1= Strongly disagree

❖ Demographic Characteristics of Respondent

No	Variable	Alternatives	Rating scale				
			5	4	3	2	1
1	Sex	Male					
		Female					
2	Age	30-33					
		28-29 ,					
		27-25					
		24-22					
		21-16					
3	Educational background	5-8					
		9-10					
		11-12					
		College, or university Student					
		College, or university complete					

❖ Questionnaires Prepared to assess concerning to what factors affecting athletes Performance

No	Variable	Alternatives	5	4	3	2	1
1	Lack of more competition opportunity affects your sprint performance	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
2	You sleep more hours a day after performing a training	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
3	you get sufficient salary from the club	Somewhat agree					
		Disagree					
		Strongly disagree					
4	the starting ability is influenced the sprint performance result	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
5	when you join the club you selected based on norms and on your talent	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					

❖ Questionnaires Prepared to know concerning to Nutritional athletes taking before and after training to improve sprint performance

No	Variable	Alternatives	5	4	3	2	1
1	athletes get nutrition access from the club	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
2	To be effective in sprint running any kind of nutrition has high impact to improve sprint performance	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
3	Clubs give nutrition access during at the competition times	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
4	You select to get access or to prepare nutrition during the training time rather than during at the competition time	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					

❖ Questionnaires Prepared to assess training methods whether suitable or not to athletes

No	Variable	Alternatives	5	4	3	2	1
1	During each day training sessions you perform similar types of training	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
2	you perform training for a long time in each training day	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
3	The training that you perform have progressiveness in intensity and load from training to training	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					

No	Variable	Alternatives	5	4	3	2	1
4	Technical training is necessary in each training session	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
5	Performing strength training have great role to improve sprint performance.	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
6	you know that what you perform each day trainings purpose	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
7	trainings that you performed are differentiated based on your training ability and training age	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
8	You started training above the age of 20	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					

❖ Questionnaires Prepared to know Concerning whether athletes are taking training with qualified Coaches

No	Variable	Alternatives	5	4	3	2	1
1	coaches use a method to sustain your performance when the competition day reaches	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
2	your coach have high performance to give scientific training to sprinter athletes	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					

No	Variable	Alternatives	5	4	3	2	1
3	The method and style of your coaching is suitable for athletes	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
4	your coach motives you to work hard to improve your performance	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
	your relationship with your coach is good	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					

❖ Questionnaires Prepared to identify Concerning to Environmental related factors affecting athletes performance

No	Variable	Alternatives					
1	performing training in a hot temperature has positive impact to improve sprint performance	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
2	when you perform training in cold environment it enhances your performance	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Somewhat agree					

3	Addis Ababa Weather condition is suitable for sprinting training.	Strongly agree					
		Agree					
		Disagree					
		Somewhat agree					
		Strongly disagree					
4	You accept that the Weather condition you performed training out of Addis Ababa that affects your sprint performance	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					

❖ Questionnaires prepared to understand Psychological related Factors Affecting Their Performance

No	Variable	Alternatives					
1	when the competition time approaches you usually exposed to frustration	Strongly agree					
		Agree					
		Disagree					
2	you fill anger before the competition time	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
3	Your Self-confidence isn't decrease when the competition approaches	Somewhat agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
4	You lack or loss Your concentration from the starting position during at competition time	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
5	You have good personality commitment to training	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					

❖ Questionnaires prepared to Assess Training Facilities or Equipments Accessed or Not

No	Variable	Alternatives	5	4	3	2	1
1	You have get sufficient Facilities or equipment access to training	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
2	The club has his own gymnasium center	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
3	The club accessed training equipments on time at the beginning of starting training	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
4	The training supplies that the club gives to you is comfortable to training	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					

➤ **Open ended questions prepared to athletes**

- 1) What problems affect short distance runners' performance?
- 2) Do you cover the given training program?
- 3) How could be short distance runners performance will improve?

## **Appendix B**

### **ADDIS ABABA UNIVERSITY**

#### **Colleague of Natural Science**

#### **Department Of Sport Science**

Questionnaire to be filled by coaches

Dear coaches the main objective of this questionnaire is to assessing factors affecting on the performance of short distance runners in the case of four 1<sup>st</sup> division athletics clubs in Addis Ababa city administration for partial fulfillment of my MSC in A.A.U

Therefore your willingness, good cooperation and genuine response is curial to the success of this study .Hence, you are kindly requested to give your response confidentiality. Saying these, I would like to extend my cordial gratitude for your cooperation to fill the questionnaire. The information's collected will not be used for any other purpose and it will be confidential. The questionnaire is not by any means to evaluation of the coaches' knowledge so I humbly request you to give a true and precise response.

First of all I would like to thank you for your willingness to fill this questionnaire.

#### **Note**

- No need of writing your name.
- Put this symbol “√” in the given box and there are some open ended questions so write your answers on the space provided.
- Rating: 5= Strongly agree, 4 = Agree, 3 = somewhat agree, 2 = Disagree, 1= Strongly disagree

❖ Demographic Characteristics of Coaches

No	Variable	Alternatives	5	4	3	2	1
1	Sex	Male					
		Female					
2	Educational back ground	Ma/MSC/med/second, agree					
		College diploma, disagree					

❖ Questions prepared to know concerning to Coaching Qualification and Experiences

No	Variable	Alternatives	5	4	3	2	1
1	You have daily and yearly training plan	strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
2	You have evaluate the performance of your athlete	strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly Disagree					
3	Athletes performance have improved after you started to give training	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
4	You analysis the previews and current profile of athletes performance	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
5	You prepare each days training program in each day	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly disagree					
6	Coaches have assistance staff members	Strongly agree					
		Agree					
		Somewhat agree					
		Disagree					
		Strongly Disagree					
7	You have done a researcher works related to short distance after you enjoyed to this club	Strongly Agree					
		Agree					
		Somewhat Agree					
		Disagree					
		Strongly Disagree					

### **Open ended Questionnaires which were prepared for coaches**

1. When you want to plan annual plan what things under considering for planning
1. Any method that you use to monitor the training program whether it is effective or not effective to all athletes?
2. Have you done a researcher works related to short distance? If you done how many researches?

## **Appendix C**

### **ADDIS ABABA UNIVERSITY**

#### **College of Natural Science**

#### **Department Of Sport Science**

Interviews for club officials

Dear managers the main objective of this questionnaire is to assessing factors affecting on the performance of short distance runners in the case of four 1<sup>st</sup> division athletics clubs in Addis Ababa city administration for partial fulfillment of my MSC in A.A.U

Therefore your willingness, good cooperation and genuine response is curial to the success of this study .Hence, you are kindly requested to give your response confidentiality. Saying these, I would like to extend my cordial gratitude for your cooperation to interview. The information's collected will not be used for any other purpose and it will be confidential. The questionnaire is not by any means to evaluation of the managers' knowledge so I humbly request you to give a true and precise response.

First of all I would like to thank you for your willingness to interview

1. As you are sport management leader have you graduated with spot science?
2. During at this time short distance runners aren't effective to improve this what things will be taken as a solution
3. Does the club have enough financed annually?
4. Do you know what short distance training needs as you are leader of sport field?
5. Does the club done research works related to this discipline to be change the status of short distance result?
6. When the club hold athletes what is the main objectives

### Appendix D

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

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

Observation Time: \_\_\_\_\_

**Observation checklist** quantifiers Excellent=5, Very good=4, Good=3, Faire=2, Not faire=1,

No	Content	5	4	3	2	1
1	The comfortable of training place sprinter athletes and to follow each athletes for the coach					√
2	The punctuality of coaches on time from the training place				√	
3	Arriving on time to training all athletes to training			√		
4	Access of transportation system to athletes from the clubs		√			
5	Gym training/exercises access for athletes			√		
6	Gym trainers qualification to athletes					√
7	Interest of athletes during the training time with the program				√	
8	training analysis and give suggestions and corrections					√
9	The coaches and athletes interaction or relationship				√	
10	Annually, monthly and weekly and also daily plan preparation			√		
11	Objectives of training plan and objective of daily training relationships implementation					√
12	Profile of the athletes preparations and goal of improve performance from the training					√
13	The follow up of coaches to all athletes during training times?					√
14	The motivation system of coaches athletes during training time				√	

Source: Survey Data,20202