



**ST. MARY'S UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**  
**MBA PROGRAM**

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**THE MEDIATING ROLE OF INDIVIDUAL PERFORMANCE ON THE  
RELATIONSHIP BETWEEN WORKPLACE DIVERSITY AND TEAM  
EFFECTIVENESS OF KOLFE KERANIYO SUB-CITY  
ADMINISTRATION**

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**BY: BINYAM TADELE WASSIE**

**JANUARY, 2018**  
**ADDIS ABABA, ETHIOPIA**

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**BY: BINYAM TADELE WASSIE**

**(SGS/0068/2008B)**

**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF  
GRADUATE STUDIES IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS  
ADMINISTRATION**

**JANUARY, 2018**

**ADDIS ABABA, ETHIOPIA**

**ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES  
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**BY**

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## **DECLARATION**

I hereby declare that this submission is my own work towards the award of Masters of Business Administration and that, to the best of my knowledge it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University , except where due acknowledgement is made in the text.

**Binyam Tadele (SGS/0068/2008B)**\_\_\_\_\_

**Date:** \_\_\_\_\_

## **Statement of Certification**

This is to certify that **Binyam Tadele Wassie** has carried out his research work on the topic entitled, **The Mediating role of Individual Performance on the Relationship between Workplace Diversity and Team Effectiveness of Kolfe Keranyo Sub City**. The work is original in nature and is suitable for submission for the award of Master of business administration degree.

**Degree in Business Administration**

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**Advisor: Dr. Afework Getachew**

## **ABSTRACT**

**Purpose** –It is obvious that working together in teams with individuals that has a selection of different sets of skill, educational back ground ,experience, gender and age difference does positively contributes to, customer satisfaction, creativity, managerial capability, decision making, innovation process of an organizations thus in turn enable the organizations to achieve their goals and objectives. The purpose of this paper is to test the Mediating role of Individual Performance on the Relationship between Workplace Diversity and Team Effectiveness.

**Design/methodology/approach** – The research is quantitative and explanatory in nature. The researcher used both purposive and convenience sampling techniques and data were collected through structured questionnaire from 135 employees that work in 24 different work teams. Computation and analysis was conducted using SPSS (Statistic Package for Social Science) version 20 software. The researcher used this software in order to address the initial research question of the study.

**Findings** – There is a positive relationship between workplace diversity and team effectiveness but individual performance neither mediate the relationship between workplace diversity and team effectiveness nor have a positive relationship with both workplace diversity and team effectiveness.

**Practical implications** -This study investigates the process by which teams become effective, and the results suggests that diversity has the highest effect on team effectiveness which has a beta of (0.302). So procedures and work design systems should be redesigned to ensure the development of diversified, strong and functional teams moreover the organization should work to improve its employee's performance through training and development.

**KEY WORDS:** Team effectiveness, individual performance, workplace diversity, and meditation.

# Table of Contents

<b>DECLARATION</b> .....	<b>iv</b>
<b>Statement of Certification</b> .....	<b>v</b>
<b>ABSTRACT</b> .....	<b>vi</b>
<b>Table of Contents</b> .....	<b>vii</b>
<b>List of Figures</b> .....	<b>xi</b>
<b>List of Tables</b> .....	<b>xii</b>
<b>List of Acronyms/Abbreviations</b> .....	<b>xiii</b>
<b>Acknowledgement</b> .....	<b>xiv</b>
<b>Dedication</b> .....	<b>xv</b>
<b>CHAPTER ONE: INTRODUCTION</b> .....	<b>1</b>
<b>1.1 Background</b> .....	<b>1</b>
<b>1.2 Statement of the problem</b> .....	<b>4</b>
<b>1.3 Research Question of the Study</b> .....	<b>6</b>
<b>1.4 Objective of the Study</b> .....	<b>6</b>
<b>1.4.1 General Objective</b> .....	<b>6</b>
<b>1.4.2 Specific Objectives</b> .....	<b>6</b>
<b>1.5 Significance of the Study</b> .....	<b>6</b>
<b>1.6 Scope of Study</b> .....	<b>7</b>
<b>1.7 Limitation of the study</b> .....	<b>7</b>
<b>1.8 Hypotheses</b> .....	<b>7</b>
<b>CHAPTER TWO: REVIEW OF THE LITERATURE</b> .....	<b>9</b>
<b>2.1 Theoretical literature</b> .....	<b>9</b>
<b>2.1.1 Teamwork in Organizations</b> .....	<b>9</b>
<b>2.1.2 General Definitions of Teamwork</b> .....	<b>9</b>
<b>2.1.3 Types of Teams</b> .....	<b>10</b>
<b>2.1.4 Team Effectiveness Models</b> .....	<b>14</b>
<b>2.1.4.1 Rubin, Plovnick, and Fry's GRPI Model of Team Effectiveness</b> .....	<b>15</b>
<b>2.1.4.2 The Katzenbach and Smith Model</b> .....	<b>16</b>
<b>2.1.4.3 The T7 Model of Team Effectiveness</b> .....	<b>17</b>
<b>2.1.4.4 The LaFasto and Larson Model</b> .....	<b>18</b>
<b>2.1.4.5 The Hackman Model of Team Effectiveness</b> .....	<b>18</b>

2.1.4.6 The Lencioni Model.....	19
2.1.5 Characteristics of Effective Teams .....	20
2.1.6 Empirical literature: Team effectiveness .....	22
2.2 Theoretical literature: Work place diversity .....	25
2.2.1 Introduction .....	25
2.2.2 Definition of Diversity .....	25
2.2.3 Concepts of Diversity .....	26
2.2.4 Types of Diversity.....	27
2.2.4.1 Respect in the Workplace .....	27
2.2.4.2 Conflict .....	28
2.2.4.3 Lifestyle Acceptance .....	28
2.2.4.4 Ethnic and Cultural Differences .....	28
2.2.4.5 Gender .....	29
2.2.4.6 Harassment.....	29
2.2.4.7 Communication.....	29
2.2.4.8 Generation Gaps .....	30
2.2.4.9 Disabilities .....	30
2.2.4.10 Education background .....	30
2.2.5 Empirical literature review: Diversity .....	30
2.3 Theoretical literature: Individual performance .....	33
2.3.1 Introduction .....	33
2.3.2 Relevance of Individual performance .....	33
2.3.3 Definition of performance .....	33
2.3.4 Performance as a multi-dimensional concept.....	35
2.3.4.1 Task performance.....	35
2.3.4.2 Contextual performance .....	36
2.3.5 Performance as a dynamic concept .....	36
2.3.6 Individual performance models .....	37
2.3.6.1 The Capabilities Model .....	37
2.3.6.2 The Behavior Engineering Mode .....	38
2.3.7 Empirical literature review: Employee Performance.....	38
2.4 Conceptual framework and Hypotheses .....	40

2.4.1 The Role of Performance on Team Effectiveness .....	40
2.4.2 Role of Diversity on individual performance .....	41
2.4.3 Role of Diversity on Team Effectiveness .....	42
2.4.4 The Mediating Role of Individual Performance .....	43
2.4.5 Conceptual framework .....	44
<b>CHAPTER THREE: RESEARCH METHODOLOGY .....</b>	<b>45</b>
3.1 Chapter Overview/ Introduction .....	45
3.2 Research approach.....	45
3.3 Research type.....	45
3.4 Sampling Design .....	46
3.4.1 Population of the study.....	46
3.4.2 Target Population.....	46
3.5 Research environment .....	46
3.6 Sample Size .....	47
3.7 Sources of data.....	48
3.7.1 Primary Source .....	48
3.7.2 Secondary Source .....	48
3.8 Data collection instruments .....	49
3.8.1 Data collection procedures.....	49
3.9 Method of data analysis .....	49
3.10 Validity and reliability .....	50
3.10.1 Validity .....	50
3.10.2 Reliability .....	50
3.10.3 Ethical consideration.....	51
<b>CHAPTER FOUR: DATA ANALYSIS, RESULT AND DISCUSSION.....</b>	<b>52</b>
4.1 Introduction .....	52
4.2 Survey Response Rate and Reliability Test .....	52
4.3 Research Findings .....	56
4.3.1 Analysis of questionnaire .....	56
4.4 The relationship between the study variables.....	60
4.5 Test of Regression Assumptions.....	61
4.5.1 Linear Relationship .....	61

4.5.2 No Multicollinearity .....	61
4.5.3 Auto-correlation.....	62
4.5.4 Homoscedasticity (Equal Variance).....	62
4.5.5 Normality.....	63
4.5.6 Multiple Regressions .....	63
4.6 Test for mediation .....	66
4.6.1. Mediation analysis .....	66
<b>CHAPTER FIVE: CONCLUSION AND RECOMMENDATION.....</b>	<b>76</b>
5.1 Conclusions .....	76
5.2 Recommendations .....	78
5.3 Future Research .....	79
<b>REFERENCES.....</b>	<b>80</b>
Appendix I.....	86
Appendix II .....	90

## List of Figures

Figure 2.1, Types of work teams.....	10
Figure 2.2, Rubin, Plovnick, and Fry's GRPI Model .....	15
Figure 2.3, the Katzenbach and Smith Model.....	16
Figure 2.4, the T7 Model of Team Effectiveness .....	17
Figure 2.5, The Hackman Model.....	18
Figure 2.6, the Lencioni Model .....	19
Figure 2.7, Characteristics of high-performing work teams.....	21
Figure 2.8, A Conceptual framework, Hayes and Preacher (2014).....	44
Figure 4.9, Homoscedasticity .....	63
Figure 4.10, mediation not in the model .....	67
Figure 4.11, mediation in the model .....	67

## List of Tables

Table 2.1, Comparison of types of teams .....	13
Table 2-2, Synopsis of team types, structures and applications .....	14
Table 2-3, dimension of diversity .....	27
Table 4-1, Response Rate of The study .....	52
Table 4-2, Reliability test.....	53
Table 4-3, Gender * Respondents Cross tabulation .....	53
Table 4-4, Age * Respondents Cross tabulation.....	54
Table 4-5, Educational level * Respondents Cross tabulation .....	54
Table 4-6, Experience * Respondents Cross tabulation .....	55
Table 4-7, Positions * Respondents Cross tabulation .....	55
Table 4-8, Ethnicity * Respondents Cross tabulation .....	56
Table 4-9, Level of Workplace Diversity – sub-city Employees Perception.....	57
Table 4-10, Workplace diversity.....	57
Table 4-11, Team effectiveness .....	58
Table 4-12, Individual performance.....	59
Table 4-13, Correlation .....	60
Table 4-14, multicollinearity .....	61
Table 4-15, Level of auto-correlation .....	62
Table 4-16, R square level of the study .....	64
Table 4-17, ANOVA.....	64
Table 4-18, Coefficients of the variables .....	65
Table 4-19, Coefficient for the mediating effects .....	68
Table 4-20, Total direct and indirect effect table.....	73

## List of Acronyms/Abbreviations

- *CNC- Computer numeric control*
- *PROMES -Productivity Measurement and Enhancement System*
- *MBIT-Myers-Briggs Type Indicator*
- *VIF-Variance inflation factor*
- *SPSS- Statistic Package for Social Science*
- *ANOVA-Analysis of variance*
- *ULCI-Upper limit confidence interval*
- *LLCI- Lower limit confidence interval*
- *SE-Standard error*
- *AMOS- Analysis of a moment structures*
- *GRPI -goals, roles, processes, and interpersonal relationships.*

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## **Dedication**

*This Thesis is dedicated to the love and support of my mother Mrs. Alem Mekonen,  
who rose, supported and paves the way of life for me.*

*For being a hero mom, support and encouragement!!!*

# CHAPTER ONE: INTRODUCTION

## 1.1 Background

It is acknowledged that much of today's work is carried out in collaborative arrangements. The successful performance of such teams is the key to achieving organizational objectives and goals. In many manufacturing and service settings, fluid teams of individuals with varied sets of experience and diversity are responsible for projects that are critical to their organizations' success (Kozlowski and Ilgen, 2006).

Work teams can be defined as groups that exist for performing organizationally relevant tasks, that maintain a certain degree of interdependence in terms of goals and tasks, that manage and maintain their boundaries, and that are immersed in an organizational context which limits their activity and influences the extent of their interchange with other teams within the organization (Kozlowski & Bell, 2003).

Team effectiveness, also referred to as team performance, is a team's capacity to achieve its goals and objectives. This capacity to achieve goals and objectives leads to improved outcomes for the team members (e.g., team member satisfaction and willingness to remain together) as well as outcomes produced or influenced by the team. In a science team or larger group, the outcomes include new research findings or methods and may also include translational applications of the research, (Kozlowski and Ilgen, 2006).

Currently workplaces is becoming increasingly diverse as globalization and growing competition necessitate a workforce consisting of individuals with different backgrounds, experience, and knowledge to maximize competitive advantage (Ragins & Gonzalez, 2003). Evidence suggests that diversity in the workplace is strategically beneficial as it has the potential to increase creativity and innovation, which is likely to role performance positively (Basset-Jones, 2005; Richard 2000). Yet, some literature findings suggest that the relationship between diversity and performance is negative. Studies show that diversity decreases group cohesiveness which in turn leads to poor performance (e.g., Jehn & Chatman, 2000).

The meaning of diversity within the workplace is not limited to those attributes which are observed but also include invisible characteristics such as differences in creativity, comprehension, learning style, and problem-solving ability (Nafukho, 2011). Multiple categories of diversity within the workplace may influence individual, group and organizational performance and processes (van Knippenberg and Schippers, 2007). As a

consequence, a broader definition of diversity underpins the development of this article. Diversity is defined as “any dimension that can be used to differentiate groups and people from one another” (Giovannini, 2004).

Team’s enables people to cooperate, enhance individual skills and provide constructive feedback without any conflict between individuals (Jones, 2012). Teamwork is an important factor for smooth functioning of an organization. Most of the organizational activities become complex due to advancement in technology therefore teamwork is a major focus of many organizations. One research study concluded that teamwork is necessary for all types of organization including non-profit organizations (Pfaff & Huddleston, 2003). Team members enhance the skills, knowledge and abilities while working in teams (Froebel & Marchington, 2015).

Organizations which emphasize more on teams have results in increased employee performance, greater productivity and better problem solving at work (Cohen & Bailey, 1999). One research study concluded that to teach individuals on how to work in teams is not an easy task because to teach individuals regarding to work in teams is inappropriate (Crosby, 1991). Teamwork is a significant tool of new type of work organization.

According to Ingram, (2000) teamwork is a strategy that has a potential to improve the performance of individuals and organizations, but it needs to be nurtured over time. Organizations need to look at strategies for improving performance in the light of increasingly competitive environments. Top managers need to have the vision to introduce teamwork activities within the organizations, the sensitivity to nourish it and the courage to permit teams to play an important part in decision making. Conti and Kleiner (2003) reported that teams offer greater participation, challenges and feelings of accomplishment. Organizations with teams will attract and retain the best people. This in turn will create a high performance organization that is flexible, efficient and most importantly, profitable. Profitability is the key factor that will allow organizations to continue to compete successfully in a tough, competitive and global business arena. The demographic composition of today’s workplace, occasioned by the international trend toward increased immigration and the globalization of firms, is increasingly becoming diverse (Johnson, 2002; Yaprak, 2002).

The demographic trends in developed and developing countries—aging workforce, growing representation of women and minorities in the workplace, and the rising number of young people in developing countries has altered homogeneous work settings of the recent past

(Mor-Barak, 2005; Gorski, 2002). Thus, given these demographic and organizational trends, business organizations are contending with the challenges of effectively managing a diverse workforce.

This new trend in organizing work is predicated on flexibility, innovation, and quick decision making prospects inherent in a team-work setting. In a climate of increasing competitiveness, many organizations rely on workgroups to generate the innovations necessary for sustained business success (Mumford & Licuanan, 2004; West & Anderson, 1996).

Performance relates to the team's ability to achieve goals or a specific mission (Devine and Philips, 2001). In other words, performance is an outcome which is the result of some purposeful activity (Swanson and Holton, 2009).

Since performance is a foundational theme within the field of HRD (Weinberger, 1998), human resource development scholars and practitioners alike should respond to the needs of the workplace that arise from the issues of diverse teams. Given the continued trend for companies to use diverse work groups and teams for task completion (De Dreu and Weingart, 2003; Earley and Mosakowski, 2000; Garrison, 2010; Jehn and Bezrukova, 2004) and the potential for disruptive conflict which can derail organizational effectiveness (Klein, 2011), it is essential that HRD scholars and practitioners explore the issue of functional team formation and development.

Knowledge of how to build high performing productive teams of diverse individuals will make a positive contribution to the overall viability of organizations (Garrison, 2010; Klein, 2011; Vos and van der Zee, 2011).

## 1.2 Statement of the problem

Successful teams are comprised of individuals who are aligned by a shared vision and are able to act together to create desired results (Senge, 1990). Unique individuals within organizations who have different cultural and educational backgrounds or process information differently, are often asked to work together in teams to accomplish tasks. Differences often create barriers to performance and hinder team and organizational success. Further, Gilley, (2010) noted that organizations often fail to emphasize effective team building as the frequency with which managers display effective team facilitation skills is very low.

According to Senge (1990), the ability for team members to align with one another and share mental models is foundational for team learning and goal achievement. As noted, team learning is the “microcosm for learning throughout the organization” (Senge, 1990). Team learning and performance have been shown to improve with the development of shared mental models (van den Bossche, 2011). There is often a misunderstanding of how underlying differences can undermine the success of teams, even though organizations understand the importance of teams (Gilley, 2010). Mannix and Neale (2005) identified organizations as irresponsible when there is an attempt to increase diversity without having an understanding of the challenges that come with having a diversified workforce and or diversified work teams.

Yeager and Fredrick, (2011), in their research entitled Developing diverse teams to improve performance in the organizational setting, the researcher finds out that, working together in teams is a good way of achieving organizational performance goals. It demonstrates that recognizing the underlying individual differences, mental models, and assumptions that team members bring to the organization can help build teams that are able to overcome dysfunctional barriers and ensure performance improvement of the individuals, teams and organizations.

Tajfel, (1981) and Turner, (1987) in their research, mentioned that ethnically diverse groups tend to be characterized by less commitment, communication, and cooperation by group members, while having greater amounts of intragroup conflict.

Michel Pollock,(2009) in his work entitled investigating the relationship between team role diversity and team performance , shows that a team consisting of either diverse natural roles or diverse personality types does not, as a result, contribute to the team’s performance. Although it was found that a team which consists of at least one

member who has a significantly strong natural role can increase the team's performance.

Admasu, (2014) in his research entitled the Effect of workforce diversity towards employee performance, revealed that effects of workforce diversity (gender, age, ethnicity and education background) towards employee performance are significant.

Prasad, (2015) in his research entitled the role of workplace diversity on organizational effectiveness revealed that, there is no empirical support for the two proportions about workforce diversity role on organizational effectiveness. The result of this empirical study indicates that the role of workforce diversity on organizational effectiveness when moderated by workforce contexts is minimal. These limitations notwithstanding, this field work has enriched the diversity literature by demonstrating empirically, that there is no casual relationship between workforce diversity and organizational effectiveness.

In case of Ethiopia, as per the concern of the researcher, there is no study undertaken in the area of the mediating role of individual performance on the relationship between workplace diversity and team effectiveness but researches related to this research topic have been presented for comparison in the above paragraphs.

The rationale behind this research is to examine the mediating role of individual performance on the relationship between workplace diversity and team effectiveness, in addition finding out different ways of dealing with diversified teams in an organization as well as to provide academicians with the necessary guidelines of conducting mediation analysis effectively between variables. Moreover, this study fills the gap of different research studies that have been conducted previously to assess the direct role of workplace diversity and individual performance on team effectiveness independently, in this research unlike the above mentioned studies, by employing the concept of mediation the researcher investigates the direct and indirect effect of workplace diversity and individual performance on team effectiveness. Consequently, it contributes meaningfully to the body of growing literature and knowledge in this area of study.

### **1.3 Research Question of the Study**

The research questions are as follows;

- Does individual performance mediate the relationship between workplace diversity and team effectiveness?
- What is the effect of individual performance on team effectiveness?
- What is the effect of workplace diversity on team effectiveness?
- What is the effect of workplace diversity on individual performance?

### **1.4 Objective of the Study**

This section deals with the objective of the study at two levels: general and specific objectives.

#### **1.4.1 General Objective**

The general objective of this study is to examine the mediating role of individual performance on the relationship between workplace diversity and team effectiveness of Kolfe Keranyo Sub-City administration to suggest better way of managing teams, diversity and achieving organizational goals, innovation and sustainable growth.

#### **1.4.2 Specific Objectives**

In order to achieve the general objective of this study, the following specific objectives were put forward:

- To determine the effect of individual performance on team effectiveness.
- To determine the effect of workplace diversity on team effectiveness.
- To determine the effect of workplace diversity on individual performance.
- To investigate the role of individual performance on the relationship between workplace diversity and team effectiveness.

### **1.5 Significance of the Study**

This study endeavors to evaluate and examine the mediating role of individual performance on the relationship between workplace diversity and team effectiveness. Hence, the sub city administrator and employees can make use of this research output. The output of the study can be used as a benchmark for the organizations officials as well as a source of

methodological approach for studies dealing with teams in general and workplace team effectiveness in particular.

The researcher also believes that this study contributes to the practices of building effective teams in the public organizations of Ethiopia at large. That is to say, this research is a contributory research in this field. The findings and recommendations of the study will contribute towards the ongoing efforts of managing and building diversified teams for the success of the organizations.

## **1.6 Scope of Study**

The scope of the research is to assess the mediating role of individual performance on the relationship between workplace diversity and team effectiveness in public organizations, particularly, in kolfe keranyo sub city administration within six months; the study limited itself to the following variables of the study; - workplace diversity, employees' performance and team effectiveness.

## **1.7 Limitation of the study**

It is very significant to note that not much conclusive research has been done in the field of team effectiveness. Therefore the weight of previous research conducted outside Ethiopia has been practically evaluated in order to look into the subject matter. The fact that the questionnaires were self-administered and structured based on many research works it may also affect the quality of the data, besides it must also be noted that the findings of this study will reflect the perceptions of the organization involved, therefore not be assumed to be universally applicable to all companies.

## **1.8 Hypotheses**

H1: Individual performance does not have a significant positive effect on team effectiveness.

H1a: Individual performance has significant positive effect team effectiveness.

H2: workplace diversity has a significant positive effect on Individual performance.

H2a: workplace diversity does not have a significant positive effect on Individual performance s.

H3: workplace diversity has a significant positive effect on team effectiveness.

H3a: workplace diversity does not have a significant positive effect on team effectiveness.

H4: Individual performance does mediate the relationship between workplace diversity and team effectiveness.

H4a: Individual performance does not mediate the relationship between workplace diversity and team effectiveness.

## **CHAPTER TWO: REVIEW OF THE LITERATURE**

This chapter gives an overview of researches on the relationship between workplace diversity and teamwork effectiveness in organizations and the mediating effect of individual performance on the above mentioned two variables.

### **2.1 Theoretical literature**

This section deals with the definition, type, model and concept of team.

#### **2.1.1 Teamwork in Organizations**

Developing and delivering reliable and effective service need professionalized work at the public service. Now a day in a globalized world Organizations shall believe in the importance of teamwork and its formation which in turn could directly affect the success of service quality and customer satisfaction. Team effectiveness can be measured through team performance. An individual's performance within a team contributes immensely to the success of the entire team, and the combined effort of each individual ultimately contributes to the entire team's effectiveness.

#### **2.1.2 General Definitions of Teamwork**

Recently, teamwork is getting more and more emphasized and being studied by many authors and discussed in various articles. Researchers usually define and emphasize particular points of teamwork such as the importance of common goal and target; and the importance of cooperated work of a group of people.

As one of the purposes of this literature review , in order to comprehend it deeply, some of the noteworthy definitions of teamwork are compiled as follows; A team is a group composed of limited number of people who have complementary abilities, a common goal, performance objectives and collective approaches that they deem one another as mutually responsible (Katzenbach and Smith, 1993 as cited in Aarsal, 2003)

A team is a collection of individuals who exist within a larger social system such as an organization, who can be identified by themselves and others as a team, who are interdependent, and who perform tasks that affect other individuals and groups (Guzzo and Dickson, 1996 as cited in Stewart, Manz, and Sims, 1999). Organizations have come to rely

on team-based arrangements to improve quality, productivity, customer service, and the experience of work for their members (Guzzo, Salas, and Associates, 1995).

Team is a group of people that perform similar works, voluntarily gather together to analyze the problems and to create solutions and present them to the management. In other words, team is the place where collective ideas are generated. The employees undertake responsibilities for quality and productivity execute the works and develop their abilities and skills in line with the expectations of the organization (Gustafson and Kleiner, 1994).

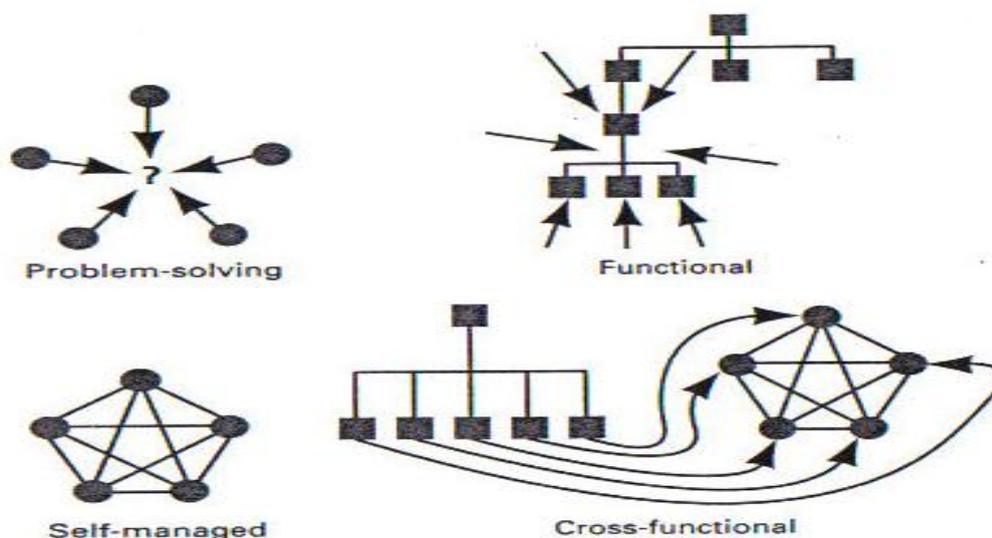
A team is a group of people who are interdependent with respect to information, resources, and skills and who seek to combine their efforts to achieve a common goal (Thompson, 2004).

As these definitions show, teamwork has some significant characteristics. Almost all the definitions are similar to each other but their ways of describing general properties of teamwork, such as its advantages and disadvantages vary according to different authors.

### 2.1.3 Types of Teams

Teams are categorized in various ways. Some researchers classify teams on the basis of their objectives. Robbins and De Cenzo (1998) categorize teams as functional teams, problem-solving teams, self-managed teams, and cross-functional teams.

**Figure 2.1, Types of work teams**



**Source: Robbins and De Cenzo, (1998)**

**Functional Teams** are formed from one manager and his/her employees. Team is involved in efforts to improve work activities or to solve specific problems within the particular unit.

**Problem-Solving Teams** are formed by five to twelve hourly employees from same department. They discuss ways to improve the quality, productivity, efficiency and work environment. One of the most used methods during 1980s is “Quality Circles”. Eight to ten employees come together, and meet regularly. They discuss quality problems, try to find solutions, investigate, and finally they achieve realistic results belonging to their qualitative findings.

**Self-Managed Teams** are formed of only employees, they do not have manager. They are responsible for a complete work process or segment that helps to conclude finally a product or service for an internal or external customer. Xerox, General Motors, Hewlett- Packard are a few of many companies that have performed self- managed work teams.

**Cross-Functional Teams** are composed of employees from same hierarchical level but belonging to different work areas in the organization. They get together to complete specific tasks. Cross- functional teams have been built by many companies for many years. All the major automobile manufacturers, Toyota, Chrysler, Nissan, General Motors, Ford, Honda, and BMW, use cross-functional teams to manage complex projects.

Cross-functional teams are also effective to exchange information, to develop new opinions, to solve the problems and to execute complex tasks. Creativity and diversity is mostly seen in cross-functional teams, because members have different area of specialization. Therefore, these teams cannot be easily managed. This difficulty could be easily returned to an advantage with diversity. The diversity that exists in a team can help to find unique or creative results.

Johnson and Johnson’s (1994) team classification is based on where the teams are used; work area, sports, and learning situations. They define work team as a set of people in interaction which is structured to maximize members’ proficiency and success, and to cooperate and integrate members’ effort with other members. A sports team is a set of people in interaction which is structured to improve members’ athletic performance and to cooperate and integrate members’ effort with other members. A learning team is a set of people in interaction which is structured from same hierarchical level of people to improve their knowledge and skills and to cooperate and integrate members’ effort with other members.

Katzenbach and Smith (1993) classify three types of teams:

- Teams that run things,
- Teams that recommend things,
- Teams that make or do things.

On the other hand, Hackman's (1987) classification can be summarized according to the differentiation of degree of autonomy and control of the organization (as cited in Thompson, 2004):

Manager-Led Teams, most traditional type of team, are managed by the manager as a team leader. Other members of team are responsible for only their assigned work. The manager is responsible for controlling, managing performance processes, selecting members, controlling relations between team and company and overseeing design. Some examples of manager-led work teams are; automobile assembly teams, surgery teams, sports teams, and military teams.

Self-Managing Teams (Self-Regulating), increasingly common in companies, are managed by a manager as a team leader. Leader determines purpose of the team. Members are free about using any of the methods to achieve their purpose. Some examples are; executive search committees and managerial task forces. According to Stewart and Manz (1995); self-managing teams improve productivity, quality, savings, and employee morale, as well as contribute to reductions in absenteeism and turnover. (As cited in Thompson, 2004) The disadvantage is that leader of team has less influence about process and products for achieving goal. As an advantage, self-managing teams are time-consuming.

Self-Directing Teams (Self-Designing), assign their goal, methods, and processes themselves. Management is responsible for only the team's organizational condition. Self-directing teams are time-consuming. Occurrence of conflicts is high. Building of this kind of teams can be costly. Some disadvantages are; difficulties on monitoring their progress, marginalization of the team, and lack of team legitimacy.

Self-Governing Teams and boards of directors are responsible for performing a task, using their own methods, designing the group, and designing the organizational conditions. Further classification made by Mason. (1996) is multidisciplinary teams, interdisciplinary teams, and interdisciplinary learning teams. Types of teamwork across the structural and process dimensions are compared in Table 2.1

**Table 2.1, Comparison of types of teams**

Characteristics of Teams	Multidisciplinary Teams	Interdisciplinary Teams	Interdisciplinary Learning Teams
<b>Focus</b>	Providing quality care Achieving Care Outcomes	Providing quality care Achieving Care Outcomes May Attend to Process	Providing Quality Care Plus Continuous Improvement Achieving Care Outcomes plus Team Learning
<b>Attitude toward change</b>	Accepts change	Accepts change	Stimulates and Embraces Change
<b>Attitude toward diversity</b>	Recognizes diversity	Respects diversity	Capitalizes on Diversity
<b>Roles</b>	Fixed	Fixed but collaborate	Flexible and Synergistic
<b>Presumptions about Leadership</b>	Physician leadership assumed	Is assigned or may emerge according to the situation	Emerges According to the Situation or Need
<b>Attitude toward patients and family</b>	Consulted on plan of care	Variable Range of Involvement in Plan	Partners in Designing a Plan of Care

**Source: Mason, (1996).**

Finally, Quality Council of Indiana (2005) classifies teams according to types of teams that are used by organizations throughout the world. This classification can be summarized as;

**Quality Circles:** Circle is a group of people in production area which come together to work on improving the quality and lowering manufacturing costs.

**Quality Teams:** Quality teams are made up of by management but directed by members. Efforts of the team members are same with quality circles.

**Self-Directed Teams:** Self-directed teams select their team leader themselves to interface with other teams and manage team activities. Self-directed teams are able to achieve their goals in a specified time. They have a wide liberty to do everything for achieving their goals. Natural Work Team Organization: Natural work team leadership is usually given to the area supervisor. Team members come from the supervisor’s work force. Members from outside (from specialist companies) can be included to team as an active member or a contributing guest.

**Cellular Teams:** Cellular teams are a bit different than natural work teams. Team is named “Cellular team” because the work cell arrangement in which a number of employees either fabricate or assemble parts. These teams can be managed by a supervisor or may be self-directed.

**Six Sigma Teams:** Six sigma is a proven disciplined approach for improving measurable results for any organization. The structure and functional roles of Six Sigma Teams closely follow the description of project and ad hoc teams.

**Improvement Teams:** Members' of improvement teams are selected from different departments to solve the problem or to improve the production, Problem is given from management and team should work on until they solve it.

**Project Teams / Task Forces / Ad Hoc Teams:** Members' of project teams are selected according to their experiences and directed by management to search into specific areas such as the modernization of a piece of equipment or solution to a customer complaint.

**Cross Functional Teams:** Cross functional teams are made up of individuals belonging to different departments or working in different work areas. Members should be knowledgeable about processes, policies, operations of their own specialization or functional area.

**Table 2-2, Synopsis of team types, structures and applications**

<b>Team Type</b>	<b>Structure</b>	<b>Best Applications</b>
<b>Improvement Teams</b>	May be 8 to 10 members from a single department.	Can work on quality or productivity issues. A process improvement team can consist of multi-department membership and focus on process flow and product issues.
<b>Quality Teams</b>	May be 8 to 10 members from a single department.	May initially work on quality topics or overall department performance. Can evolve into self- directed teams.
<b>Project Teams</b>	Can have broad or specific member selection. May consist of all or part management.	Works on specific projects such as the installation of a conveyor system. Can also focus on material related items like an improved inventory control system. Usually disbands upon the completion of a project.
<b>Six Sigma Teams</b>	Generally 8 to 12 members with Black Belt or Master Black Belt support.	Works on specific processes or customer based projects of importance. Usually disbands upon project completion.
<b>Cross Functional Teams</b>	8 to 12 members from different areas, departments, or disciplines	Members are carefully selected. Knowledgeable people are required. Very similar to project teams. Tends to deal more with policies, practices and operations.
	6 to 15 members. Generally a natural work area team. May need area staff support.	Requires considerable training and exposure. Can be given objectives or develop their own. Some companies select people with cooperative skills to help with success.

Source: Quality Council of Indiana, (2005)

## 2.1.4 Team Effectiveness Models

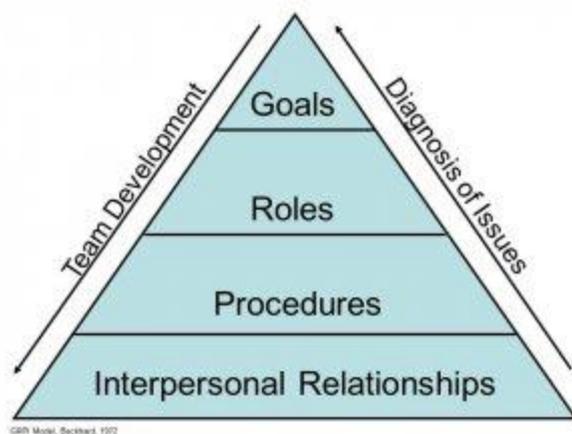
What makes a team perform well together? This is a question that thought leaders and psychologists have been trying to figure out for some time. And in order to make sense of it all, they've proposed various models of team effectiveness with each model having its own

strengths and weaknesses. Some models focus on how a team is structured and how communication happens, while other models focus more on the talent that individuals bring to the plate, or the company culture that they find themselves working in.

Understanding these team effectiveness models can help you figure out which model to adopt for your own team. Or it may simply help shed light into what's working in your own group, and how to help improve what's lacking.

#### 2.1.4.1 Rubin, Plovnick, and Fry's GRPI Model of Team Effectiveness

Figure 2.2: Rubin, Plovnick, and Fry's GRPI Model



Source: Rubin, Plovnick, and Fry (1977)

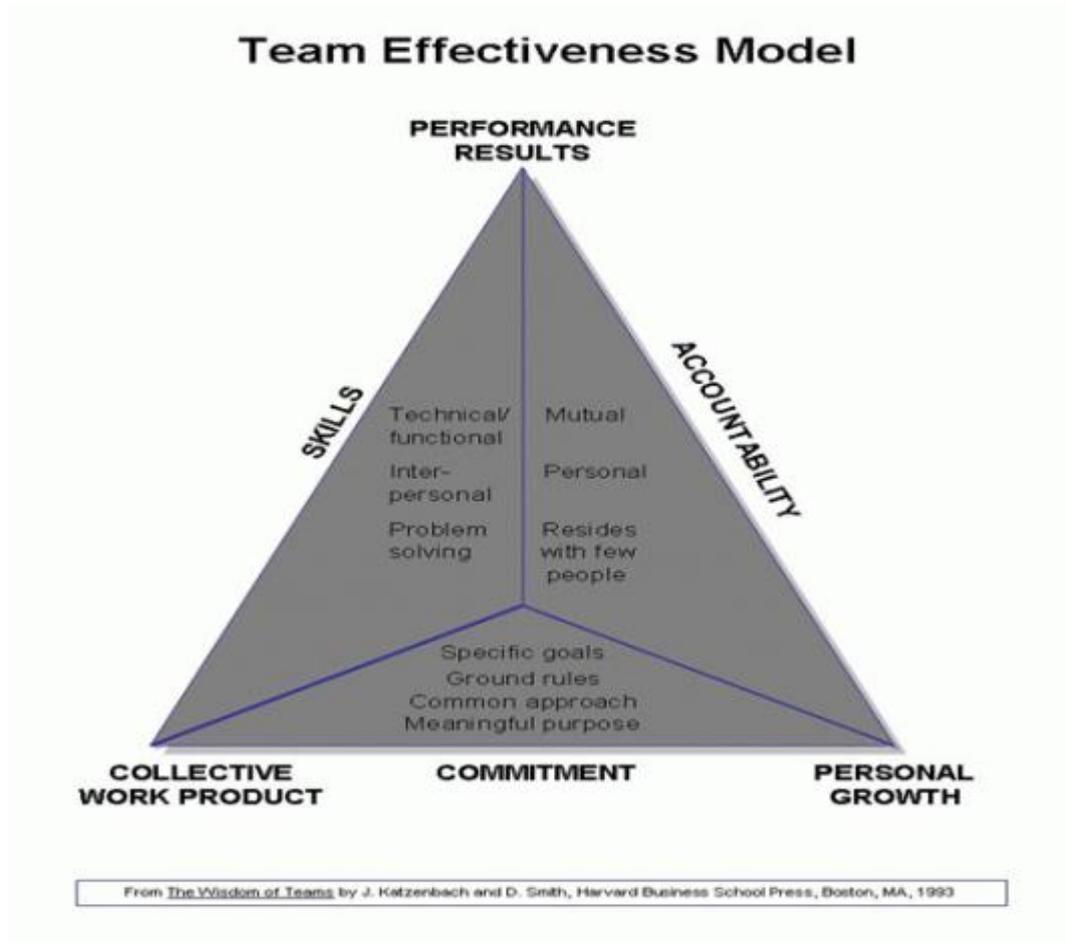
As early as 1977, this model of team effectiveness was proposed by Rubin, Plovnick, and Fry. It is also known as the GRPI model to stand for goals, roles, processes, and interpersonal relationships, and is represented in a diagram as a pyramid. In order for a team to be effective, they need these four parts:

1. **Goals:** well-defined objectives and desired results, plus clearly communicated priorities and expectations
2. **Roles:** well-defined responsibilities, acceptance of a leader
3. **Processes:** clear decision-making processes as well as work procedures
4. **Interpersonal relationships:** good communication, trust, and flexibility

Because of its simplicity, the GRPI model is great when starting a team or when encountering a team-related problem with an unknown cause.

## 2.1.4.2 The Katzenbach and Smith Model

Figure 2.3, the Katzenbach and Smith Model



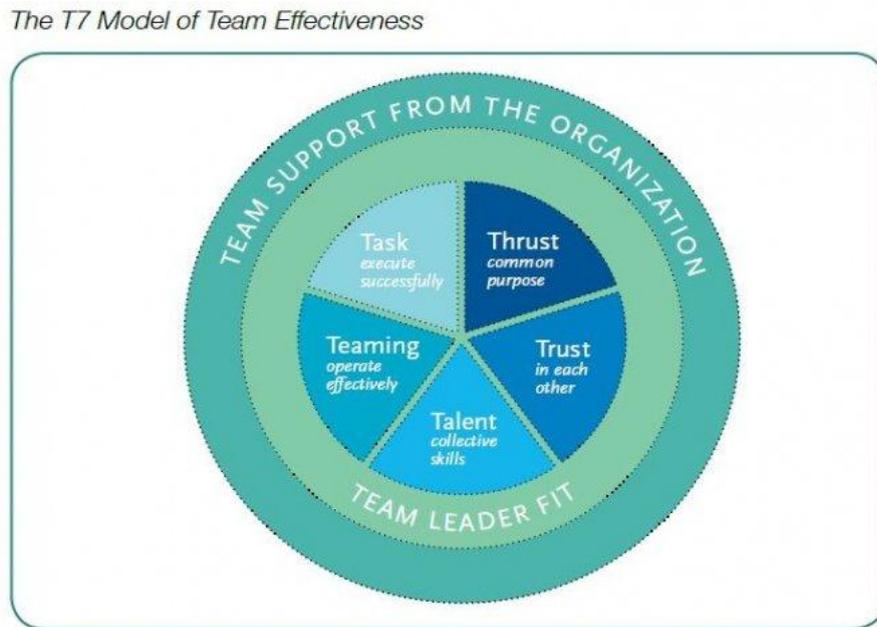
Source: Katzenbach and Douglas (1993)

In 1993, authors Jon Katzenbach and Douglas Smith unveiled their model after having studied teams across several companies and various work challenges. Their book, *The Wisdom of Teams*, lays out their model of efficient teams in a triangular diagram, with the three points being the larger deliverables of any team: **collective work products, performance results, and personal growth**. And in order to reach those goals, there are three necessary factors in play, which make up the sides of the triangle:

- **Commitment:** teams are committed when they have a meaningful purpose, specific goals, and a common approach to their work
- **Skills:** team members need skills in problem solving, technical skills to accomplish their craft, and interpersonal skills to enhance teamwork
- **Accountability:** team members must have mutual accountability to one another as well as individual accountability to one's own work, and ideally these teams must be made up of only a small number of people.

### 2.1.4.3 The T7 Model of Team Effectiveness

Figure 2.4, the T7 Model of Team Effectiveness



**Source: Lombardo and Robert (1995)**

In 1995, Michael Lombardo and Robert Eichinger originally developed the T7 Model to try to get to grips with what factors affect team effectiveness. They identified five internal and two external factors, each starting with "T," hence the T7 model. These factors are:

#### **Internal team factors**

- Thrust: a common objective or goal
- Trust: knowledge that your team has your back
- Talent: skills to do the job
- Teaming skills: ability to function as a team
- Task skills: ability to execute on tasks

#### **External team factors**

- Team leader fit: whether the leader works well with the team
- Team support from the organization: how the organization enables the team to work

For a team to be high performing, all five internal factors must be present. However, no matter how complete the internal factors, if leadership and the organizational support are lacking, the team's effectiveness is hampered.

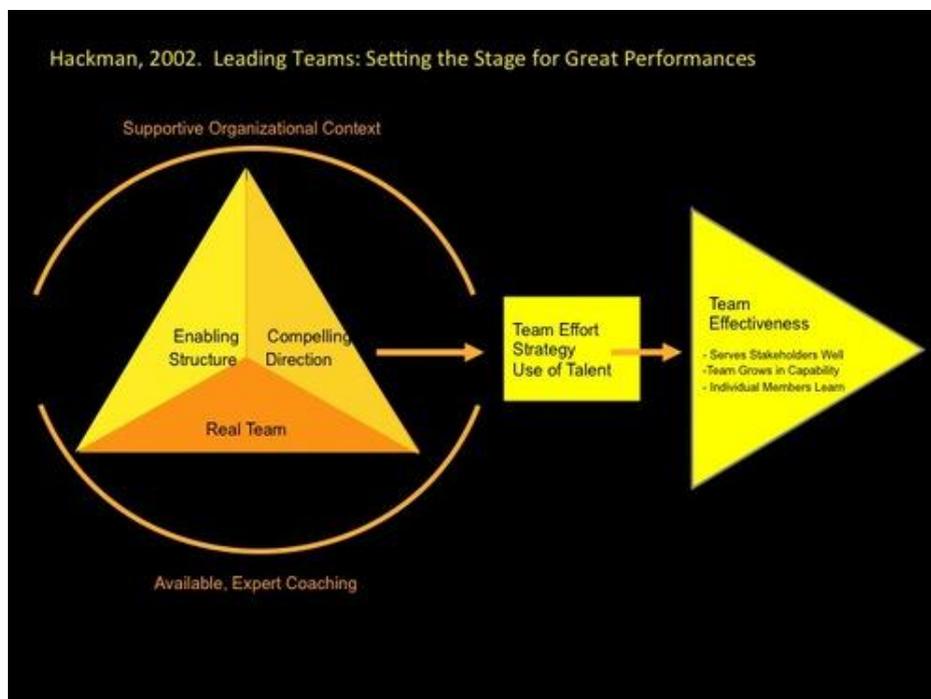
#### 2.1.4.4 The LaFasto and Larson Model

Authors Frank LaFasto and Carl Larson proposed a model in 2001 called Five Dynamics of Team Work and Collaboration. They gathered insights from investigating 600 teams across various industries to answer the question "what is an effective team?" In result, they built a model consisting of five layers or components that increase the likelihood of effectiveness:

- **Team member:** What are his or her skills and behaviors? Picking the right person is the first step.
- **Team relationships:** The right behavior in a team builds up healthy working relationships between members.
- **Team problem solving:** Good team relationships make it possible to work together to solve problems.
- **Team leadership:** The right leadership enhances a team's success.
- **Organization environment:** The right processes and company culture in an organization promote commitment from teams.

#### 2.1.4.5 The Hackman Model of Team Effectiveness

Figure 2.5, The Hackman Model



Source: J. Richard Hackman (2002)

Author J. Richard Hackman proposed a model in his 2002 book *Leading Teams: Setting the Stage for Great Performances* that revolve around five conditions that increase the

probability of team effectiveness. Hackman's study of analytic teams in the U.S. intelligence community confirms that these five conditions do indeed promote team effectiveness and growing team capabilities over time:

1. Being a **real team** as opposed to a nominal team: This means effective teams have a boundary which clearly delineates who is a part of the team, the members are interdependent, and the membership is at least moderately stable.
2. Having a **compelling direction** that everyone works toward: This means setting goals that are clear, challenging, and of sufficient consequence to motivate team members to strive together.
3. Having an **enabling structure** that allows for teamwork: The team's structure — its conduct, the way it organizes and works on its tasks — has to enable teamwork and not impede it. If, for example, only one person gets to approve the work of 20 people, then that structure is hampering the team's effectiveness.
4. Having a **supportive context** within the organization that allows the team to work efficiently: This means the team receives adequate resources, rewards, information, and the cooperation and support needed to do their work.
5. Having **expert coaching** and guidance available to the team: Effective teams in business are those with access to a mentor or a coach who can help them through any issues.

#### 2.1.4.6 The Lencioni Model

Figure 2.6, the Lencioni Model



Source: Patrick Lencioni (2005)

In 2005, author Patrick Lencioni published his book *The Five Dysfunctions of a Team*, which laid out a work team effectiveness model based on what causes dysfunctions,

conflicts, and political maneuverings in a work group. Basically, he mapped out the conditions you should not have if you want your team to be effective. To know your team's dysfunction is to know how to cure it. Those dysfunctions are:

1. An absence of **trust**: If team members are afraid to be vulnerable, or afraid to ask for help, then they won't turn to their teammates for assistance. If there's no trust, there's no comfort level needed for interactions and work to be smooth.
2. A fear of **conflict**: If everyone is trying so hard to preserve some artificial idea of peace in the group, there aren't any dynamic conflicts that result in productive ideas.
3. A lack of **commitment**: If people aren't committed to the work they do or the team they're in, then they won't follow through on their decisions or deadlines.
4. Avoidance of **accountability**: Here's another drawback of the fear of conflict — no one wants to hold others accountable for their work.
5. Inattention to **results**: If personal goals become more important than the success of the group, then no one will be watching results or even planning how to improve those results.

Lencioni's team effectiveness leadership model is illustrated as a pyramid, where you tackle each dysfunction one by one from the bottom up.

## 2.1.5 Characteristics of Effective Teams

Effective teams are needed for delivering high quality products and services to customers. In the related literature, there are several studies on team effectiveness.

Johnson and Johnson (1994) state that productivity of teams is not only an integration of team members' technical knowledge and task abilities; To be productive, teams must ensure that members perceive strong positive interdependence, interact in ways that promote each other's success and well-being, be individually accountable, employ their small-team skills, and process how effectively the team has been working .

According to Reid (1998), the common characteristics of high performing teams can be explained as follows;

- There's a common purpose / goal,
- Relationships are based on trust and respect between the team members,
- Task and process is balanced,
- Firstly everything is planned and then all the processes work according to the plan,
- Team members all participate problem-solving and decision making processes,
- Every member is different than the other; respecting and understanding each other is a purpose,
- Synergism and interdependence are valued,

- Team goals are always emphasized and supported,
- Individual performance that supports the team is rewarded,
- Effective communication exists between team members,
- Instead of debates, effective dialogues are done to solve group conflicts,
- Vary levels and intensity of work,
- There is a balance between work and home of the members,
- The way they work as a team critiqued, regularly and consistently,
- Continuous improvement is practiced.

According to Wheelan (1999); there are ten key areas that members of an effective-productive team should pay attention:

- Goals,
- Roles,
- Interdependence,
- Leadership,
- Communication and Feedback,
- Discussion, Decision Making, and Planning,
- Implementation and Evaluation,
- Norms and Individual Differences,
- Structure, Cooperation and Conflict Management.

According to Robbins and De Cenzo (1998), following points are important characteristics of an effective team:

- Having a clear understanding of their goals,
- Having competent members with relevant technical skills and abilities,
- Exhibiting high mutual trust in the character and integrity of their members,
- Being unified in their commitment to team goals,
- Having good communication systems,
- Possessing effective negotiating skills,
- Having effective leadership,
- Having both internally and externally supportive environments

The Above characteristics are summarized in Figure 2.7.

**Figure 2.7 Characteristics of high-performing work teams**



Source: Robbins, DeCenzo, (1998, p.339)

Differently, according to Europe Japan Centre (2000), it is useful to divide into two categories of criteria which successful teams must have in place: preconditions and characteristics.

Preconditions are supplied by those who are outside the team, for example, those who built the team or those whom reports. Successful teams clearly know their purpose, role and importance, affecting the organization's strategic intent. Another important factor of preconditions is empowerment. They designate their own destiny themselves. Teams must be supported by the company or by the person to whom they give report. Successful teams also translate their purposes into measurable objectives. Every member knows, understands and accepts these objectives.

As the other category, characteristics, describe that teams should have to achieve success; to help teams understand their roles and accelerate their development, it helps if they have knowledge of how teams work and the training to teach them about how to get better at being a team (Europe Japan Centre, 2000).

In successful teams, interpersonal skills of team members are necessary for having respect of each other's views, and being open to each other's opinions. Unproductive conflicts do not appear. Participation among members is very important factor in successful teams. People share their views, opinions, time and energy. Decision making is also an important factor of characteristics. Decisions are reached before proper evaluation, analyzing, and with gathering true information. New ideas, new technologies, better ways to do something are always searched by the team members for improving creativity. One gives an idea, the other puts on it and so on. Managing the external environment is necessary for successful teams. Team members interact with people who are outside the team. These could be other members of the organization. They can get information from them and share information with them.

### **2.1.6 Empirical literature: Team effectiveness**

Teamwork is an efficient way of achieving success at work place or in the organization. It helps in boosting the productivity, effectiveness and efficiency of work as well as the performance of organizations as a whole. Research suggests that teamwork is 'an integral tool aiding continuous improvement in work operations' (Banker, Field, 1996). However, the empirical evidence regarding team effectiveness is limited and often has the form of anecdotes or descriptive case studies; stories of huge cost savings and quality improvements abound (Gupta & Ash, 1994; Neck, 1999; Katzenbach & Smith, 1993,

Cohen & Ledford, 1994; Benders, 1999; Glassop, 2002). The purpose of this article is to determine the role of structural features of working teams on performance, and more specific on productivity. Our results suggest that there is no statistically significant association between the implementation of teamwork and organizational productivity. Also team structure seems to have no significant effect on productivity, when we control for some important workplace characteristics.

Misbah ifran (2015) in his research revealed that, there is a positive relationship between teamwork on employee motivation. Those employees working in a team are more satisfied with their jobs and prove themselves as an asset of organization. Teamwork and employee motivation both are important tools for the success of the organization without these tools organizations can't survive in this rapidly change environment. Because team building engaged multiple variety of activities and these activities developed to encourage team performance. The basic mission of team building is to ensure self-development, effective communication, leadership skills and the ability to ma

Emmanuel (2015), the role of teamwork on employee performance. Based upon the findings this research revealed that, teamwork has a positive role on organizational performance.

Okechukwu Agwu (2015,p 57),in his research ,the relationship between Teamwork and Employee Performance , indicated that significant relationship exists between teamwork and employee performance. The use of teamwork brings about greater flexibility and increased workflow in addition there is a significant relationship between teamwork and increased employee motivation/commitment plus to that there is a significant relationship between teamwork and increased employee productivity.

Musab Işık 2015, the aim of the researcher is to investigate the relationship between teamwork and organizational trust. Consequently, it is found that there is a positive and significant relationship between teamwork and organizational trust. Thus, the hypothesis of the study is supported as it was expected. Besides, it is found that there are positive and significant relationships between communication, openness to innovation, participation-trust in teamwork and organizational trust, trust in management, trust in co-workers, and trust in workplace. According to the correlation analyses there is a positive relationship between teamwork and organizational trust at % 99 significance level. Additionally, teamwork dimensions (communication, openness to innovation and participation – trust) were determined to be positively related to organizational trust dimensions (trust in

management, trust in co-workers and trust in workplace). Results suggest that teamwork plays an increasing role for organizational trust and with the increase of the levels of workers' perception on teamwork their levels of trust in management, co-workers and workplace increase too.

Sonal Agar wal (2016) the research shows a strong positive significant relationship between the independent variables namely teamwork, esprit de corps, team trust, recognition & rewards and employee performance. However, teamwork was highly correlated with employee performance. The results show that an increase in teamwork, esprit de corps, team trust, recognition & rewards will contribute to a 70.5% increase organizational productivity and 29.5% may be due to other factors that were not considered in this study. The independent variables thus teamwork, esprit de corps, team trust, recognition & rewards influenced employee performance by 62 %, 15.2 %, 13.3% and 10.7 % respectively. The overall results revealed that teamwork which brings benefits in terms of higher productivity , better organizational performance, competitive advantage and increased product quality and quantity highly contributes to organizational productivity compared to other factors.

Guzzo and Marcus,(1996) Employers may be able to improve their performance by increasing the volume of teamwork and taking action to raise the performance level of the individual, but to succeed in this they need to pay attention to the quantity and type of teamwork offered. Teamwork activity within the organization is very much beneficial and its effect is directly on employee performance. When employee acquires adequate opportunities of teamwork his/her performance automatically improves and he/she will be satisfied with the job and this could ensure that skills are better utilized. This might reduce the possibility of an employee quitting a job.

## **2.2 Theoretical literature: Work place diversity**

This section deals with the definition, type, model and concept of workplace diversity.

### **2.2.1 Introduction**

A central question in organizations is whether there exists an optimal balance between diversity and homogeneity within teams of workers. While diversity brings in a wider range of skills and ideas, it also creates communication costs and other frictions inside the organization - many studies (e.g. Prat (2002), Lazear (1999)) have highlighted this trade-off.

### **2.2.2 Definition of Diversity**

Jackson, Joshi. (2003) explained that diversity is the presence of contrasts among individuals from a unit of society. Today, the workforce is more diverse regarding gender, age, creed, ethnicity including the general population who are distinctive and display diverse states of mind, practices, needs, norms, traditions, standards and values on workplace as noted by (Wong 2001).

Chin (2010) characterized workforce differing qualities alludes to the assortment of dissimilarities between people in an affiliation including age, race, sexual orientation, ethnic gathering, subjective style, residency, age, identity, hierarchical capacities, training, foundation and the sky is the limit from there. The U. S National Partnership for Reinventing Government (NPR) Diversity Task Force commonly with the US Department of Commerce in their financed standard examination of assorted qualities (2007) portrayed differing qualities as including every one of the traits and behavioral results that depict each of us as a person. It is almost obvious from the above definitions and discussions that the majority of the researchers harmonize on the meaning of workforce diversity.

The leading sources of the diversity comprise age, gender, creed, ethnicity (culture) and educational background moreover many more sources of diversity are there like personal demographics; skills, knowledge, abilities, values, beliefs and outlooks, personality and cognitive and interactive style of an individual. According to Graen (2003), there other numerous sources of differing qualities as political preferentialism, family relations, instructive foundation, fellowships and Leader Member Exchange joining forces aptitudes containing execution of group abilities and skills.

### 2.2.3 Concepts of Diversity

Diversity is a subjective phenomenon, created by group members themselves who on the basis of their different social identities categorize others as similar or dissimilar: “A group is diverse if it is composed of individuals who differ on a characteristic on which they base their own social identity”. Diversity could be defined as that which differentiates one group of people from another along primary and secondary dimensions. Primary dimensions of diversity, those exerting primary influences on our identities, are gender, ethnicity, race, sexual orientation, age and mental or physical abilities and characteristics.

In broad terms, diversity is any dimension that can be used to differentiate groups and people from one another. It means respect for and appreciation of differences in ethnicity, gender, age, national origin, disability, sexual orientation, education, and religion. But it's more than this. We all bring with us diverse perspectives, work experiences, life styles and cultures. As a source and driver of innovation, diversity is a —big ideal in business and in society. At RBC we know the power of diversity is unleashed when we respect and value differences (Pafia. 1997).

The concept of diversity encompasses acceptance and respect. It means understanding that each individual is unique, and recognizing our individual differences. These can be along the dimensions of race, ethnicity, gender, sexual orientation, socio-economic status, age, physical abilities, religious beliefs, political beliefs, or other ideologies. It is the exploration of these differences in a safe, positive, and nurturing environment. It is about understanding each other and moving beyond simple tolerance to embracing and celebrating the rich dimensions of diversity contained within each individual (Ozbilgin & Tatti, 2008).

There is a definite trend towards definitions of a multiplicity of diversity dimensions; Cox, (1994) adds culture, social class and language to the primary dimensions and healthcare beliefs and recreational interests to the secondary dimensions. She further adds a tertiary dimension, which encompasses historical moments experienced.

Cox lists 38 possible diversity dimensions, and further suggests that his item “character traits” is “infinitely expandable”. He illustrates this multi-dimensionality by reference to the individual as a kaleidoscope. The analogy of an iceberg comes to mind in the face of these potentially endless dimensions; the obvious characteristics of race, ethnicity, gender, age and disability relate to the small, visible portion of the iceberg, and are the basis of much anti-discrimination legislation around the world. Other dimensions such as religion, culture and political orientation are less obvious, and could be said to constitute the secondary

dimensions lying just below the surface, which may be revealed with time. The tertiary dimensions are often the core of individual identity and lie deeper below the surface. It is the vast array of qualities that lie beneath the surface that provides the real essence of diversity to be tapped into, and these have not until recently been acknowledged. It should be noted that only some of the possible dimensions are shown in Table 2.3; the lists are in no way exhaustive.

**Table 2-3, dimension of diversity**

Primary dimensions	Secondary dimensions	Tertiary dimensions
<ul style="list-style-type: none"> <li>• Race</li> <li>• Ethnicity</li> <li>• Gender</li> <li>• Age</li> <li>• Disability</li> </ul>	<ul style="list-style-type: none"> <li>Religion</li> <li>• Culture</li> <li>• Sexual orientation</li> <li>• Thinking style</li> <li>• Geographic origin</li> <li>• Family status</li> <li>• Lifestyle</li> <li>• Economic status</li> <li>• Political orientation</li> <li>• Work experience</li> <li>• Education</li> <li>• Language</li> <li>• Nationality</li> </ul>	<ul style="list-style-type: none"> <li>• Beliefs</li> <li>• Assumptions</li> <li>• Perceptions</li> <li>• Attitudes</li> <li>• Feelings</li> <li>• Values</li> <li>• Group norms</li> </ul>

Source: based on R. Rijamampinina, T. Carmichael, (2005): A Pragmatic and Holistic

## 2.2.4 Types of Diversity

In his work, Top Ten Diversity Issues at Work Place, Renee (2002) stated that a common misconception is that the phrase "workplace diversity" defines meeting certain quotas in employee race or gender categories. In fact, "diversity" as it relates to human resources is a way of thinking and operating that encourages an entirely new and positive outlook among coworkers. Diversity in the work environment promotes acceptance, respect and teamwork. Companies that overcome certain diversity issues often achieve greater productivity, profit and company morale. Renee justifies the following types of diversity in the work place:

### 2.2.4.1 Respect in the Workplace

The key component in achieving a favorably diversified workplace is establishing teamwork and mutual respect among staff members. Acceptance of individual differences is essential in creating a copacetic and productive work environment. Acceptance leads to respect, and ultimately opportunity Renee (2002).

### **2.2.4.2 Conflict**

When prejudice, racism, discrimination and lack of respect creep into a work environment, conflict among employees becomes inevitable. If not distinguished, such animosity in the workplace can turn explosive or even violent. Businesses that provide a diversified work environment and provide sufficient diversity training often reduce or eliminate such occurrences.

One of the biggest diversity issues in the workplace is negative attitudes caused by prejudice and stereotyping of employees of other races, ethnicities, and backgrounds. This translates to various forms of discrimination, and if people in the management also inculcate such negative attitudes it affect hiring, firings, promotions and other functions of the organization. Very paranoia, assumptions, and pre-conceived notions accompany negative feelings. The presence of such negative attitudes negate any benefits of diversity, and rather cause a severe dent in employee morale and productivity, besides the organization running the risk of facing damaging discriminatory lawsuits, Renee (2002).

### **2.2.4.3 Lifestyle Acceptance**

Though one's personal life should typically not affect their job performance, lifestyle acceptance is sometimes an issue in the workplace. Unfortunately, even though many employers now provide extended benefits to "alternative lifestyle partners," some workers experience disrespect and discrimination from coworkers. Such behavior leads to an uncomfortable working atmosphere and poor productivity, Renee (2002).

### **2.2.4.4 Ethnic and Cultural Differences**

Ethnicity is a more acceptable term than —race in many parts of the world and it may be helpful in encouraging us to look beyond physical variation to consider diversity in heritage, culture, language, experiences, etc. For example, African Canadians often share physical characteristics that lead others to label them as a single group or race. But African Canadians are a diverse group: they come from different parts of the world with different histories, cultures, and traditions; some wear jeans and some wear robes; some of them have lived in Canada for generations while some immigrated fifty years ago and others arrived more recently; some of them speak only English or French while others speak several languages, Renee (2002).

According to Renee (2002), some individuals harbor unfair prejudices against people of different colors, cultures, ethnicity or religion than their own. Such prejudice should not be tolerated in the workplace -- much less anywhere -- and should be dealt with in a firm and prompt manner. Firm company policies and appropriate training help build acceptance and respect among a well-diversified employee body.

#### **2.2.4.5 Gender**

One the oldest and most common diversity issues in the workplace is the "men vs. women" topic. Over the years, a new element in the disputes over equal pay and opportunity is the transgender employee. Some corporations have trouble dealing with the fact that a man in women's clothing or a woman in the stages of "becoming a man" may perform equally as well on the job done as those in traditional gender roles. Recent years have witnessed the influx of many women in the workforce, and the proliferation of dual income families. The need to maintain gender equality and prevent gender discrimination in aspects such as hiring, remuneration, promotions, and the like is another major diversity issue. Women were traditionally paid less than men, and the Equal Pay Act mandated equal pay for men and women doing the same job, Renee (2002).

#### **2.2.4.6 Harassment**

Harassment can sometimes be an issue in a diversified work environment, but should absolutely never be tolerated. Recognizing harassment is key in preventing and eliminating discrimination from the workplace. Even the slightest comment made in jest can be considered harassment if any - even remotely vague - any racial, sexual or discriminatory connotation is made, Renee (2002).

#### **2.2.4.7 Communication**

Even when no prejudice exists among employees, a diversified workplace can bring about certain communication issues. Hiring immigrants who speak little or no English can reduce productivity by creating a communication barrier among team members. Employing some form of communication training and hiring sufficiently bilingual workers helps encourage and improve staff interaction. Communication barriers lead to problems in a company attempting to create a diverse workplace. For example, if a manager gives instructions about completing a certain task to an employee who fails to fully comprehend the instructions, the employee may make mistakes if he tries to complete the task without receiving clarity.

Sometimes it helps for companies to hire bilingual employees who can mediate and reduce language and communication barriers, Renee (2002).

#### **2.2.4.8 Generation Gaps**

In larger diversified corporations, staffs are often made up of workers who range in age from teenagers to senior citizens. Inevitably, generation gaps can become an issue and the age differences can trigger "cliques" and separation of the company as a unit. Bridging the gap between multiple generations of workers can sometimes become an issue for employers attempting to establish teamwork, Renee (2002).

#### **2.2.4.9 Disabilities**

Unfortunately, workers who are mentally or physically handicapped sometimes encounter discriminatory behavior from insensitive coworkers. In some cases, employers innocently overlook handicapped workers needs, such as ramps or special needs equipment. Creating a fair and comfortable work environment for disabled employees is important in a diversified workplace, Renee (2002).

#### **2.2.4.10 Education background**

Tracy and Sappington (1993) found that employers commonly reject hiring employees whose training, experience, or education is judged to be inadequate. This means that education background is critical to employees' employability level. Employees cannot find a job and perform well without adequate education background. Besides that, Daniel (2009) found that an employee was more productive depending on the level of his/her education. The more education the individual received, the more productive the worker was. Moretti (2004) argued that cities with higher percentage of tertiary education level workers will enable individuals of all education level secure higher wages. Glaeser, (1995) found that a greater proportion of educated workers in a city translate to higher economic growth.

#### **2.2.5 Empirical literature review: Diversity**

Workplace diversity is a complex, controversial, and political phenomena (Janssens & Steyaert, 2003). It has been conceptualized by researchers from several viewpoints. Several have looked at it from a narrow perspective, while some others from a broad view (Nkomo, 1995). Scholars favourably disposed to a narrow definition argue that the concept of

diversity should be restricted to specific cultural categories, such as race and gender (e.g. Cross, Katz, Miller & Seashore, 1994).

Eugene chew weiliang (2011) examined the effect of work force diversify towards employee performance in an organization. The research also focuses on workforce diversity which includes the gender, age, ethnic and education background of the employees which is the most critical variables among all the others. The results show that there is a significant role on performance when different workforce is working in an organization. Based on the results showed, the overall effects of workforce diversity (gender, age, ethnicity and education background) towards employee performance in an organization is significant in most of the ways.

Yan Zhang<sup>1</sup> and Ming-Yun Huai 2016, investigate the effects of group diversity particularly informational diversity and social diversity on individual performance through communication ties using quantitative research approach. The studies, demonstrated that different types of work group diversity have varying effects on employee performance. Specifically, they show that informational diversity positively influences individual task and creative performance by increasing network ties. Social diversity, however, shows no clear influences.

In his research entitled *The Effects of Cross Cultural Work Force Diversity on Employee Performance*, Abdel Moneim Elsaid, (2012), Explores the role of gender, age, and education background on employee performance in the Egyptian Pharmaceutical industry which is renowned to employ highly diversified workforce. The results indicated that only two variables, gender and education background, were significant in explaining the variance in employee performance when different work force work together, while surprisingly, age diversity does not.

Ehimere ogaga,(2002) examined, the role of workforce diversity on organizational effectiveness. The researcher in his study finds significant correlation between some of the diversity variables as well as individual diversity variables with the measures of organizational effectiveness. Also it reveals that gender and ethnicity are negatively related to both employee productivity and performance bonus. In addition the study find that gender, age and tenure diversities are positively correlated and are significantly related.

Muhammad, Nazar, Nadeem, Qalb (2016), examined the effect of work force diversifies towards employee performance. All the independent variables (age ,educational background, gender, ethnicity and tenure) were found to be highly significant at 5%

level of significance and the signs of the regression coefficients were in accordance to the past studies. The results show that diversity has a significant role on employee performance when different workforce is working in an organization.

In their study Anthony Odita<sup>1</sup>, Solomon (2002) , aimed at assessing the effects of workforce diversity on organizational effectiveness. The researcher's finding show that there is a significant positive relationship between the variables of workforce diversity and organizational effectiveness; in particular cultural diversity was found to be more effective, also Team building & group training-which mediates between workforce diversity and organizational effectiveness. The study concluded that any organization-whose leaders and policy makers are pragmatic, perspicacious and pertinacious, Team building & group training in line with good diversity management will act as panacea to the cankerworm of low employee performance that have set the bottom figure of most organizations balance sheet in bracket.

Assefa Admasu (2014), examined the effect of workforce diversity towards employee performance. The researcher in his findings revealed that gender; age, ethnicity and educational background are positively correlated and have a significant effect on employee performance but the strength of the relationship is small.

Dr. R. Durga Prasad (2015) examined The Role of Workforce Diversity on Organizational Effectiveness. The result of his empirical study indicates that the role of workforce diversity on organizational effectiveness when moderated by workforce contexts is minimal.

## **2.3 Theoretical literature: Individual performance**

### **2.3.1 Introduction**

Individual performance is a core concept within work and team effectiveness. During the past 10 or 15 years, researchers have made progress in clarifying and extending the performance concept (Campbell, 1990). Moreover, advances have been made in specifying major predictors and processes associated with individual performance. With the ongoing changes that we are witnessing within organizations today, the performance concepts and performance requirements are undergoing changes as well (Ilgen & Pulakos, 1999).

### **2.3.2 Relevance of Individual performance**

Organizations need highly performing individuals in order to meet their goals, to deliver the products and services they specialized in, and finally to achieve competitive advantage. Performance is also important for the individual. Accomplishing tasks and performing at a high level can be a source of satisfaction, with feelings of mastery and pride. Low performance and not achieving the goals might be experienced as dissatisfying or even as a personal failure. Moreover, performance if it is recognized by others within the organization is often rewarded by financial and other benefits. Performance is a major although not the only prerequisite for future career development and success in the labor market. Although there might be exceptions, high performers get promoted more easily within an organization and generally have better career opportunities than low performers (VanScotter, Motowidlo, & Cross, 2000).

### **2.3.3 Definition of performance**

Despite the great relevance of individual performance and the widespread use of job performance as an outcome measure in empirical research, relatively little effort has been spent on clarifying the performance concept. Still, in 1990, Campbell described the literature on the structure and content of performance “a virtual desert”. However, during the past 10 to 15 years, one can witness an increasing interest in developing a definition of performance and specifying the performance concept.

Authors agree that when conceptualizing performance one has to differentiate between an action (i.e., behavioral) aspect and an outcome aspect of performance (Campbell, 1990; Campbell, McCloy, Oppler, & Sager, 1993; Kanfer, 1990; Roe, 1999). The behavioral aspect refers to what an individual does in the work situation. It encompasses behaviors

such as assembling parts of a car engine, selling personal computers, teaching basic reading skills to elementary school children, or performing heart surgery. Not every behavior is subsumed under the performance concept, but only behavior which is relevant for the organizational goals: “Performance is what the organization hires one to do, and do well” (Campbell, 1993). Thus, performance is not defined by the action itself but by judgmental and evaluative processes (cf. Ilgen & Schneider, 1991; Motowidlo, Borman, & Schmit, 1997). Moreover, only actions which can be scaled, i.e., measured, are considered to constitute performance (Campbell, 1993).

The outcome aspect refers to the consequence or result of the individual’s behavior. The above described behaviors may result in outcomes such as numbers of engines assembled, pupils’ reading proficiency, sales figures, or number of successful heart operations. In many situations, the behavioral and outcome aspects are related empirically, but they do not overlap completely. Outcome aspects of performance depend also on factors other than the individual’s behavior. For example, imagine a teacher who delivers a perfect reading lesson (behavioral aspect of performance), but one or two of his pupils nevertheless do not improve their reading skills because of their intellectual deficits (outcome aspect of performance). Or imagine a sales employee in the telecommunication business who shows only mediocre performance in the direct interaction with potential clients (behavioral aspect of performance), but nevertheless achieves high sales figure for mobile phones (outcome aspect of performance) because of a general high demand for mobile phone equipment.

In practice, it might be difficult to describe the action aspect of performance without any reference to the outcome aspect. Because not any action but only actions relevant for organizational goals constitute performance, one needs criteria for evaluating the degree to which an individual’s performance meets the organizational goals. It is difficult to imagine how to conceptualize such criteria without simultaneously considering the outcome aspect of performance at the same time. Thus, the emphasis on performance being an action does not really solve all the problems.

Moreover, despite the general agreement that the behavioral and the outcome aspect of performance have to be differentiated, authors do not completely agree about which of these two aspects should be labeled ‘performance’. In the remainder of this chapter we follow the suggestion of Campbell, (1993) and refer to the behavioral aspect when we speak about performance.

### **2.3.4 Performance as a multi-dimensional concept**

Performance is a multi-dimensional concept. On the most basic level, Borman and Motowidlo (1993) distinguish between task and contextual performance. Task performance refers to an individual's proficiency with which he or she performs activities which contribute to the organization's 'technical core'. This contribution can be both direct (e.g., in the case of production workers), or indirect (e.g., in the case of managers or staff personnel). Contextual performance refers to activities which do not contribute to the technical core but which support the organizational, social, and psychological environment in which organizational goals are pursued. Contextual performance includes not only behaviors such as helping coworkers or being a reliable member of the organization, but also making suggestions about how to improve work procedures.

Three basic assumptions are associated with the differentiation between task and contextual performance (Borman & Motowidlo, 1997; Motowidlo & Schmit, 1999): (1) Activities relevant for task performance vary between jobs whereas contextual performance activities are relatively similar across jobs; (2) task performance is related to ability, whereas contextual performance is related to personality and motivation; (3) task performance is more prescribed and constitutes in-role behavior, whereas contextual performance is more discretionary and extra-role.

#### **2.3.4.1 Task performance**

Task performance is converting inputs into outputs, it is in itself multi-dimensional. For example, among the eight performance components proposed by Campbell (1990), there are five factors which refer to task performance (cf. Campbell, Gasser, & Oswald, 1996; Motowidlo & Schmit, 1999): (1) job-specific task proficiency, (2) non-job-specific task proficiency, (3) written and oral communication proficiency, (4) supervision—in the case of a supervisory or leadership position—and partly (5) management/administration. Each of these factors comprises a number of sub factors which may vary between different jobs. For example, the management/administration factor comprises sub dimensions such as (1) planning and organizing, (2) guiding, directing, and motivating subordinates and providing feedback, (3) training, coaching, and developing subordinates, (4) communication effectively and keeping others informed (Borman & Brush, 1993).

In recent years, researchers paid attention to specific aspects of task performance. For example, innovation and customer-oriented behavior become increasingly important as

organizations put greater emphasis on customer service (Anderson & King, 1993; Bowen & Waldman, 1999).

### **2.3.4.2 Contextual performance**

Contextual performance is activities that contribute to the social and psychological core of an organization. On a very general level, one can differentiate between two types of contextual performance: performance as dynamic concept behaviors which aim primarily at the smooth functioning of the organization as it is at the present moment, and proactive behaviors which aim at changing and improving work procedures and organizational processes. The ‘stabilizing’ contextual performance behaviors include organizational citizenship behavior with its five components altruism, conscientiousness, civic virtue, courtesy, and sportsmanship (Organ, 1988), some aspects of organizational spontaneity (e.g., helping coworkers, protecting the organization, George & Brief, 1992) and of pro social organizational behavior (Brief & Motowidlo, 1986). The more pro-active behaviors include personal initiative (Frese, Fay, Hilburger, Leng, & Tag, 1997; Frese, Garst, & Fay, 2000; Frese, Kring, Soose, & Zempel, 1996), voice (Van Dyne & LePine, 1998), and taking charge (Morrison & Phelps, 1999). Thus, contextual performance is not a single set of uniform behaviors, but is in itself a multi-dimensional concept (Van Dyne & LePine, 1998).

### **2.3.5 Performance as a dynamic concept**

Individual performance is not stable over time. Variability in an individual’s performance over time reflects (1) learning processes and other long-term changes and (2) temporary changes in performance.

Individual performance changes as a result of learning. Studies showed that performance initially increases with increasing time spent in a specific job and later reaches a plateau (Avolio, Waldman, & McDaniel, 1990; McDaniel, Schmidt, & Hunter, 1988; Quinn, Ford, & Teachout, 1995). Moreover, the processes underlying performance change over time. During early phases of skill acquisition, performance relies largely on ‘controlled processing’, the availability of declarative knowledge and the optimal allocation of limited resources, whereas later in the skill acquisition process, performance largely relies on automatic processing, procedural knowledge, and psychomotor abilities (Ackerman, 1988; Kanfer & Ackerman, 1989).

To identify the processes underlying changes of job performance, Murphy (1989) differentiated between a transition and a maintenance stage. The transition stage occurs when individuals are new in a job and when the tasks are novel. The maintenance stage occurs when the knowledge and skills needed to perform the job are learned and when task accomplishment becomes automatic. For performing during the transition phase, cognitive ability is highly relevant. During the maintenance stage, cognitive ability becomes less important and dispositional factors (motivation, interests, and values) increase in relevance.

Performance changes over time are not invariable across individuals. There is increasing empirical evidence that individuals differ with respect to patterns of intra-individual change (Hofmann, Jacobs, & Gerras, 1992; Ployhard & Hakel, 1998; Zickar & Slaughter, 1999). These findings indicate that there is no uniform pattern of performance development over time.

Additionally, there is short-term variability in performance which is due to changes in an individual's psycho-physiological state, including processing capacity across time (Kahneman, 1973). These changes may be caused by long working hours, disturbances of the circadian rhythm, or exposure to stress and may result in fatigue or in a decrease in activity. However, these states do not necessarily result in a performance decrease. Individuals are, for example, able to compensate for fatigue, be it by switching to different strategies or by increasing effort (Hockey, 1997; Van der Linden, Sonnentag, & Frese, in press; Sperandio, 1971).

## **2.3.6 Individual performance models**

### **2.3.6.1 The Capabilities Model**

According to Kostas (2007), the capabilities model extends the concept of core competencies, by utilizing the fit between a particular capability and an employee (Stalk, 1992). A capability is defined as a set, or a complex string of business processes that deliver value to clients in a unique way.

The uniqueness of a capability makes the product more difficult to duplicate than, for example, core competencies. Capabilities-based companies have been very successful at transferring their critical business processes to new geographic locations and to new business ventures (Stalk, 1992). While the transfer of core competencies is a piecemeal approach that requires large coordination of people, when using the capabilities approach, employees are trained to utilize processes, so it is easier to match employees'

(internal/external fit) to global needs. As well, capabilities encompass an entire value chain, so the degree of toughness or novelty that may challenge organizational members working abroad, can be readily assessed.

### **2.3.6.2 The Behavior Engineering Mode**

Based on Gilbert's (1978) classic behavior engineering model, it enables the HR professional to organize and to monitor key human resource attributes of the global organization. The model has three cells that correspond to the workplace environment (information, resources, incentives), and three cells that correspond to employee performance factors (knowledge, capacity, motives). When planning for excellent performance, the focus is on employee factors, but general research has shown that when employees are adequately provided with information, resources and incentives, they are able to perform at exemplary levels. To engineer excellent performance Gilbert (1978), Rothwell (1996) and Wright and Geroy (1999), have suggested that most of the change would likely be found in the environment, rather than in the person. Thus, a two-prong approach is needed to engineer "worthy performance". In essence, the model results in a gap analysis that determines what factors should be changed to reach optimum work results.

### **2.3.7 Empirical literature review: Employee Performance**

In general, performance is a kind of process that consists of the phases like goal setting, measurement, assessment, feedback, rewarding for good results, improvement for bad results and applying sanction in case of necessity (Kaplan, R, 2001; Chang H H, 2006; Kasurinen, T, 2002). This mentioned process is an important guidance in respect to lead off in the topics, such as, what are the expectations from the employee, what are the goals of the organization in general and employee individually, what are the norms while reaching the indicated goals, whether or not there is need for a technical support or training (Kaplan, R. and Norton D, 2001, Lawrie, G. and Gobbold I, 2004). This guidance should be used in all firms which operate in production and service sectors and would like to keep up with competition conditions.

Halim kasan (2013), in his study Measurement of Employees' Performance, measures the performance of the employees who work in the service facilities. The researcher in his finding revealed that Salary, employee relationship, job satisfaction, promotion and title haven't role on employee performance, but institutional belonging and motivation have a role on employee performance.

Jankingthong and Suthinee (2012) examined Factors Affecting Job Performance. The results of the study revealed that organizational justice, work engagement, and public service motivation (PSM) have direct effects toward job performance. Transformational leadership, however, has both direct and indirect effects toward job performance.

Employees are a primary source of competitive advantage in service-oriented organizations (Luthans and Stajkovic, 1999; Pfeffer, 1994). In addition, a commitment performance approach views employees as resources or assets, and values their voice.

Macky and Johnson pointed that improved individual employee performance could improve organizational performance as well.

On the other hand, Darden and Babin (1994) said employee's performance is a rating system used in many corporations to decide the abilities and output of an employee. Good employee performance has been linked with increased consumer perception of service quality, while poor employee performance has been linked with increased customer complaints and brand switching.

Zhang (2012), performance management system and employee performance. In his finding the researcher revealed that there is a compared insignificant relationship between performance management system and employee performance. In addition, this study reveals that not all activities in performance management system influence employee performance positively. Therefore, managers and employees need to aware that the performance management activities need to be revised when they find employees is depression or unsatisfied

Raheel Manzoor (2011) the researcher found out that teamwork, esprit de corps, team trust and recognition and rewards has a significant positive effect on employee performance. The multiple regression models show the significantly strong relationship between set of 4 independent variables namely teamwork, esprit de corps, team trust, recognition & rewards and dependent variable that is employee performance. However, Teamwork was found to be the most significant independent variable having strong relationship with the dependent variable of employee performance

The purpose of this qualitative single case study was to determine what strategies are essential for organizational leaders to improve workplace performance.. The findings revealed employee compensation, communication, and a positive work environment were significant factors in the workplace. Employee turnover is a significant problem that negatively affects organizations' revenues as well as the entire economy (McKeown, 2010).

However, Homburg, Artz, and Wieseke (2012) noted the relationship between performance measurement systems to performance might incite negative implications.

## **2.4 Conceptual framework and Hypotheses**

### **2.4.1 The Role of Performance on Team Effectiveness**

An effective team is one that is comprised of at least one strong innovative team member in order for that team to perform successfully Higgs, M. “Is there a relationship between Myers- Briggs Type Indicator and Emotional Intelligence?”, *Journal of Management Psychology*, 2001. Belbin’s test can be used to identify those strong characteristics of team members that enhance team performance , Research exists which found that teams that contain one leader perform better than teams which have no leader or many leaders, and suggests that a team member that may possess a significant role, Shaper, Chairmen or Completer Finisher, enhances team effectiveness Higgs, M. “Is there a relationship between Myers- Briggs Type Indicator and Emotional Intelligence?”, *Journal of Management Psychology*, 2001. Consequently, team effectiveness increases the more significant roles are represented, Somech A. and Zahavy, A.D. “Team Heterogeneity and its relationship with team support and team performance,” *Journal of Education Development*, 2002. A core element in evaluating and measuring teams is effectiveness. The 1998 *Advanced Learner’s Oxford dictionary* defines effectiveness as: “having the desired effect; producing the intended result... making a strong and pleasing impression”. Gibson. 2004, describe effectiveness as “the number of errors made”. Thus, effectiveness can be defined as the product of clear goals and objectives whereby a pleasing impression has been created through competent labor, and where there has been a minimization of the number of errors made during the course of completing an objective. Further, effectiveness can also be understood as the team’s ability to perform.

Belbin *Management Development*, 1997, states that the effectiveness of a team is determined by the extent to which it “meets its goals, maintains the satisfaction of its members and survives”. Cohen & Bailey 1999, add that effectiveness also encompasses the quality of the final product and the degree of enjoyment the members had of the project experience. Campion (2005), confirm this by stating that effectiveness incorporates three important criteria, namely: productivity, employee satisfaction and manager judgment. In using productivity as a measure of effectiveness Campion. *Personnel Review*, Volume 34, Number 4, 2005, pp.488-503, Refer to the collection and the regular monitoring of different measures as indicators of the amount of work completed. In the group project it is expected

that teams adhere to strict deadlines of regular deliverables in order to monitor progress and enhance the quality of the final product.

In management literature one of the aspects of effectiveness is performance Waker, L. Enhancing Information Systems project team performance: Team member selection strategies, Masters Dissertation, 2001. Therefore performance has a direct relationship to effectiveness Katzenbach, J.R. and Smith, D.K. "The discipline of teams," Harvard Business Review, Volume 71, Number 2, 1993, pp. 111-120.

***H1: Individual performance does not have a significant positive effect on team effectiveness.***

***H1a: Individual performance has significant positive effect team effectiveness.***

## **2.4.2 Role of Diversity on individual performance**

Teams need to solve complex problems; therefore balance of personality types combined with diversity in skills and knowledge is desirable for effective teams. Subsequently teams should preferably be made up of members with different personality types rather than homogeneous team members Chia-Chen, K. "Research on Role of Team Leadership on Team Effectiveness," The Journal of American Academy of Business, 2004.

Personality types can be seen as behavioral patterns of individuals: the ways in which they do and say things, how they relate to people, and how they perform certain tasks or process information Myers, I.B. Myers-Briggs Type Indicator, Consulting Psychologists press, 1962. Teams with similar experience and skills performed with variable levels of success. This lack of performance was a result of poor team development, which transpired due to the incompatibility of team members' personalities. Teams should consider the "personality characteristics...that advance or impair the team effort and ultimately the final outcome of the project team" [Scott, E.C. and Van Der Merwe, p. 603].

However, highly diverse teams did not necessarily perform better [Scott, E.C. and Van Der Merwe]. In addition there is no substantial evidence to prove the widely held perception that teams with diverse personality types perform at higher levels than homogeneous teams [Myers, I.B. Myers-Briggs Type Indicator, Consulting Psychologists press, 1962.]. Webber 2004 found that team heterogeneity is negatively related to team performance as it leads to difficulty in integration and communication. Individuals subconsciously categorize each other into social categories and therefore the team loses the opportunity to benefit from team heterogeneity Sundstrom, E., De Meuse, K.P. and Futrell, D. Work teams, 1990, .

Teams should use the Myers-Briggs type theory to understand team members' strengths and weaknesses and how these factors influence team development Scott, E.C. and Van Der Merwe, 2003.

MBTI has been extensively tested for reliability and validity and "has been cited in 4605 publications and is, perhaps, the most widely used assessment instrument in present time" Myers, I.B. Myers-Briggs Type Indicator, Consulting Psychologists press, 1962. Although there is no substantial evidence which proves that MBTI is a valid instrument, the popularity of this instrument has not diminished. Therefore the following hypothesis could be developed:

***H2: workplace diversity has a significant positive effect on Individual performance.***

***H2a: workplace diversity does not have a significant positive effect on Individual performances.***

### **2.4.3 Role of Diversity on Team Effectiveness**

The importance of team diversity has been argued by various authors Katzenbach, J.R. and Smith, D.K. "Why teams matter," McKinsey Quarterly, Volume 3, 1992, pp. 3-27. Belbin's Team Role theory seems to advocate the same idea; the more roles that are filled in a team, i.e. the more diverse the team, the more effective the team was and the better the team will perform. Belbin's team roles can be matched to the elements of team effectiveness as follows: Clarity of roles, goals and objectives is addressed partly by just using Belbin's theory and thus making the team roles known to the members of the team. Also the team's Chairman and Shaper ensure that the team members know the goals and objectives. Leadership of the team is handled by the Chairman role. The team's competence is managed by the Chairman, Shaper, Resource Investigator and Monitor/Evaluator. The commitment of the team is fulfilled by all the roles. The communication of the team is usually handled by the Chairman, though all the roles need to play a part in this area to ensure good communication. The skills in the team pertain to all the roles, though the roles which mainly bring the systems development skills into the team are the Plant, Implementer, Completer Finisher and Resource Investigator. Team support is catered to by all of the roles, though the Chairman and Team Worker are more involved on that front than the other roles. Creativity falls mainly into the role of the Plant. Therefore the following hypothesis could be developed:

*H3: workplace diversity has a significant positive effect on team effectiveness.*

*H3a: workplace diversity does not have a significant positive effect on team effectiveness.*

#### **2.4.4 The Mediating Role of Individual Performance**

Statistical mediation analysis is commonplace in psychological science (see, for example, Hayes & Scharkow, 2013). This may be because the concept of mediation gets to the heart of why social scientists become scientists in the first place – because they are curious and want to understand how things work. Establishing that independent variable X influences dependent variable Y while being able to describe and quantify the mechanism responsible for that effect is a lofty scientific accomplishment. Though hard to achieve convincingly (Bullock, Green, & Ha, 2010), documenting the process by which an effect operates is an important scientific goal. Therefore based on 2.4.1 and 2.4.2 the following hypothesis could be developed:

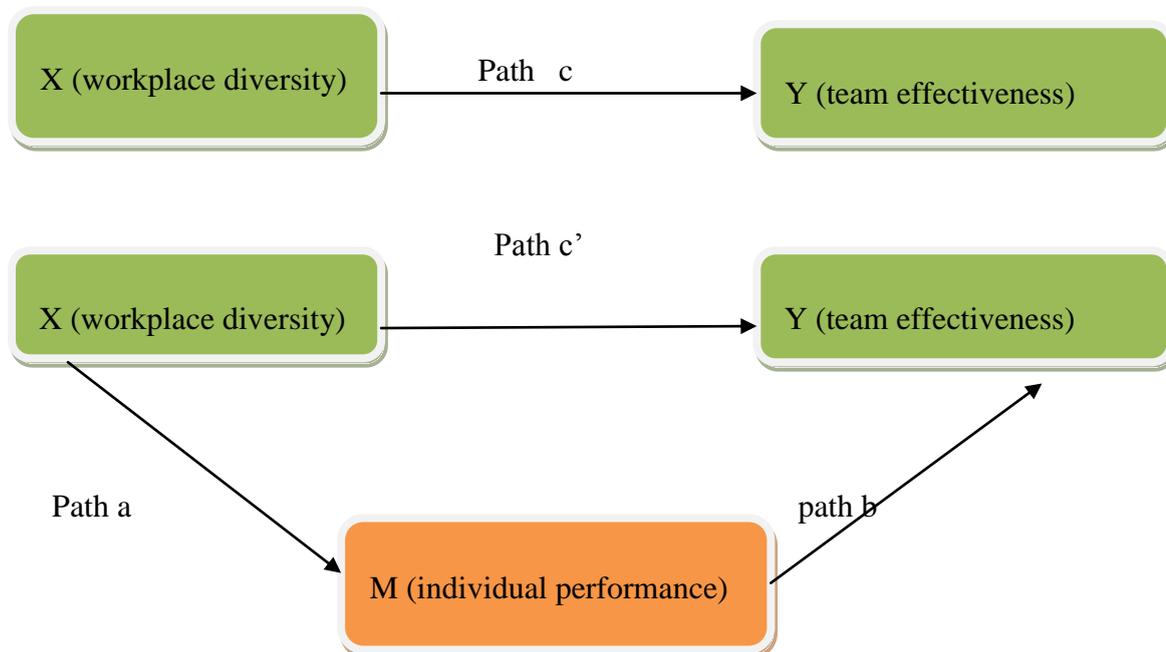
*H4: Individual performance does mediate the relationship between workplace diversity and team effectiveness.*

*H4a: Individual performance does not mediate the relationship between workplace diversity and team effectiveness.*

## 2.4.5 Conceptual framework

Statistical mediation analysis is commonplace in psychological science (see, for example, Hayes & Scharkow, 2013). This may be because the concept of mediation gets to the heart of why social scientists become scientists in the first place – because they are curious and want to understand how things work. Establishing that independent variable X (workplace diversity) influences dependent variable Y (team effectiveness) while being able to describe and quantify the mechanism responsible for that effect is a lofty scientific accomplishment. Though hard to achieve convincingly (Bullock, Green, & Ha, 2010), documenting the process by which an effect operates is an important scientific goal.

To conduct the study, the researcher used the following dependent, mediating and independent variables which are described in the literature review by different researchers. The simple mediation model, the focus of this paper, is diagrammed in Figure 1. This model reflects a causal sequence in which X, (workplace diversity) affects Y, (team effectiveness) indirectly through mediator variable M, (individual performance). In this model, X is postulated to affect M, and this effect then propagates causally to Y. This indirect effect represents the mechanism by which X transmits its effect on Y. According to this model, X can also affect Y directly – the direct effect of X – independent of X's influence on M. Examples of such a model are found in abundance in psychological science (see Bearden, Feinstein, & Cohen, 2012; Johnson & Fujita, 2012). The conceptualized relationship between the independent variables, the mediator and dependent variable is shown in the figure below.



**Figure 2.8 A Conceptual framework, Hayes and Preacher (2014)**

# **CHAPTER THREE: RESEARCH METHODOLOGY**

## **3.1 Chapter Overview/ Introduction**

This chapter of the study deals with the type of research, research design, sample, sampling techniques, data collection instrument, data collection procedures, methods of data analysis, validity, reliability and research ethics that are employed.

## **3.2 Research approach**

This study is quantitative to describe the mediating role of individual performance on the relationship between workplace diversity and team effectiveness, by collecting quantitative data from the employees of the organization. In addition the effect of independent variable on the dependent variable and the role of the mediating variable on the relationship between dependent variable and independent variable were quantitatively measured.

According to Leedy (1993) Quantitative research methods are research methods dealing with numbers and anything that is measurable in a systematic way of investigation of phenomena and their relationships. It is used to answer questions on relationships within measurable variables with an intention to explain, predict and control a phenomenon. An entire quantitative study usually ends with confirmation or disconfirmation of the hypothesis tested. For this reason the researcher employed quantitative research approach.

In addition, the data were obtained from large population, it could be difficult and often unmanageable to reach and gather research data from the entire population at a time. Quantitative method, therefore, was assumed convenient to rely on precision of obtainable data in a cost effective way, balancing reasonable composition of different respondent groups.

## **3.3 Research type**

Explanatory research focuses on why questions, answering the 'why' questions involve developing causal explanations. Causal explanations argue that phenomenon Y (dependent variable) is affected by factor X (independent variable). Some causal explanations are simple while others are more complex. For example, we might argue that there is a direct effect of independent variable on dependent variable we might argue for an indirect causal chain, such as that independent variable affects the mediating variable which in turn

affects the dependent variable. Or we could posit a more complex model involving a number of interrelated causal chains, (Suphat Sukamolson, 2007)

This study collects data on the mediating role of individual Performance on the Relationship between Workplace Diversity and Team Effectiveness and its effect on the success of the sub city to examine and explain the present level of effect of diversified work forces.

In addition the study analyzed the casual relations between the dependent (team effectiveness), the mediating (individual performance) and the independent variable (workplace diversity) using Hayes process model ,A,F,Hayes 2014, bootstrapping, correlation and regression, which make the research explanatory. Therefore, this study was explanatory.

### **3.4 Sampling Design**

This section deals about the population of the study and target population.

#### **3.4.1 Population of the study**

The population of the study was from kolfe keranyo sub city administration. The reason for the selection of the sub city was their diversified employees as well as factors like proximity, accessibility of information and the main factor was that the research topic, since the organization has large number of diversified employees that works in a team based approach that are suitable for the purpose of the study makes the sub-city more suitable for the study. So the researcher employed both convenience and purposive sampling techniques to select its study population.

#### **3.4.2 Target Population**

Population refers to the entire group of people, events, or things that the researcher wishes to investigate (Sekaran, 2003). The main objective of this research is to analyze the mediating role of individual performance on the relationship between workplace diversity and team effectiveness. The organization that was targeted is Kolfe Keraniyo sub city administration. Therefore, the target population for this research was defined to include employees, coordinators and managers of the selected sub city ‘‘case teams’’.

### **3.5 Research environment**

Kolfe keranio also spelled kolfe keraniyo or simply kolfe , is one of the 10 sub cities of Addis Ababa ,the capital of Ethiopia , as of 2011 its population was 546,219 ,the district is

located in the western suburb of the city, near the Gefersa reservoir . It borders with the district of Gullele, Addis ketema , Lideta and Nefas Selk Lafto. The sub city head quarter resides around Torhailoch ,according to the sub city human resource office the sub city has more than 500 employees at the time being and which of this 135 of them working in the so called case teams which are designated to achieve a specific task.

### 3.6 Sample Size

The sample size is an important feature of any empirical study in which the goal is to make conclusion about a population from the sample. Larger sample sizes generally lead to increased precision when estimating unknown parameters (Kumar, 1996). Sample size calculation is concerned with how much data we require to make correct decision on particular research. If we have more data, then our decision was more accurate and there was less error of the parameter estimate. This does not necessarily mean that more is always best in sample size calculation.

#### **Total population of the study**

**Total Population = N= 135**

**Sample Size =100**

For populations that are large, Cochran (1963:75) developed an equation to yield a representative sample for proportions.

$$n_0 = Z^2pq / e^2$$

This is valid where  $n_0$  is the sample size,

- $Z^2$  is the abscissa of the normal curve that cuts off an area  $\alpha$  at the tails ( $1 - \alpha$  equals the desired confidence level, in our case at 95%) and  $\pm 5\%$  precision is the desired level of precision, 5%
- $p$  is the estimated proportion of an attribute that is present in the population,  $p=0.5$  (maximum variability).
- $q$  is  $1-p$ . which was equal to 0.5

The value for  $Z$  is found in statistical tables which contain the area under the normal curve.

$$n_0 = Z^2pq / e^2 = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2} = 385$$

According to Cochran, (1963) If the population is small then the sample size can be reduced slightly. This is because a given sample size provides proportionately more information for a small population than for a large population. The sample size (n0) can be adjusted using the following equation.

$$n = \frac{n_0}{\frac{1 + (n_0 - 1)}{N}} = \frac{385}{\frac{1 + (385 - 1)}{135}} = \underline{\underline{100}}$$

### **3.7 Sources of data**

This section deals about source of source of data at two levels: primary and secondary data source.

#### **3.7.1 Primary Source**

Close-ended questionnaire that help to obtain the necessary data were used to answer the basic research questions and collect data about the mediating role of individual performance on the relationship between diversity and team effectiveness. According to Zikmund (2004), the main benefits of using survey method is that, it is inexpensive and it enables researchers to collect large amount of primary data from respondents in a short period of time.

An interval scale uses numbers to rate objects or events so that the distances between the numbers are equal (Hair, 2007). Likert Scale which was developed by Rensis Likert falls under the category of interval scale. It is a kind of measurement that allows respondents to indicate their attitudes by specifying how strongly they agree or disagree with a statement (question) that ranges from very positive to very negative attitudes towards an attitudinal object, the minimum value was represented by 1 in the Likert scale and the maximum value, by 5 , indicate the intensity of the respondents' particular judgments on the issue under investigation.

#### **3.7.2 Secondary Source**

As a secondary source of data published journal articles, books, publications, websites and others was used as appropriate.

### **3.8 Data collection instruments**

Questionnaire was used as a major instrument to gather relevant data from employees and managers, since self-administered questionnaire require respondents to take responsibility to read and answer questions carefully. So a close - ended summative Likert-item questionnaire which contains statements that are specifically designed to measure team effectiveness, individual performance and workplace diversity was adopted from Carolina university “team effectiveness assessment” (2010) ,Lurie and Schultz “assessing workplace diversity and individual performance” (2011) are used as an instrument to gather data from 100 respondents. A summative Likert scale questionnaire was assumed to be an appropriate means of collecting quantitative data with ensured speed and accuracy to respond on it (Cresswell, 2002).

The questionnaire were composed of three sections, The first section contain questioner items used to collect demographic data of respondents and the second section on five point Likert Scale to assess the level of team effectiveness and the third section to assess the level of individual performance.

#### **3.8.1 Data collection procedures**

Data was collected from survey through questionnaires. The questionnaires were handed over to the sub-city employees and given sufficient time to read and respond to the questions. The questionnaire was handed over to selected employees in each Case teams so that they distribute and follow.

### **3.9 Method of data analysis**

The study is designed to examine The Mediating role of Individual Performance on the Relationship between Workplace Diversity and Team Effectiveness of Kolfe Keranyo Sub-City. After the data was collected through structured questionnaire, computation and analysis is done by using SPSS (Statistic Package for Social Science) version 20 software. Descriptive statistics Mean Score, Standard Deviation, bootstrapping and inferential statistics like Correlation test using Pearson’s correlation and Multiple Regression analysis are used in order to address the initial research question of the study.

### **3.10 Validity and reliability**

This section deals about the overall research validity and reliability.

#### **3.10.1 Validity**

As suggested by Oroho (2009) validity as the accuracy and meaningfulness of inferences which are based on the research result. In contact with this concept, the validity of the research has been done through checking of the objectivity of the questionnaires and by taking the appropriate corrective measurements if there was any error. The checking process included the application of the sampling techniques. This help to ascertain the feasibility of the study techniques and questionnaires concepts and wording.

The statements have been generated from an extensive review of literatures, the study assume that the construct validity will hold. For the content validity the researcher had a discussion with Advisees and Mangers .Their comments were taken in to consideration for developing the final version of the instrument and finally approved by the research advisor.

#### **3.10.2 Reliability**

Reliability concerns the extent to which an experiment, test or any measuring procedure yields the same results on repeated trials (Carmines and Richard, 1979). It is clear that when we measure anything there is always a chance for errors. In fact, the goal of error free measurements may not duplicate each other exactly even if we repeated the same study with the same sample.

In general we can say that reliability of a study is a pre-requirement for the result to be interpretable and help for generalization (Ghiselli, 1981). Internal consistency reliability is used to assess the consistency of results across items within a test and the method for assessing reliability of the current study. Typically this is done either by using Cronbach alpha or by split halves method where total set of items is divided into halves and scores of the halves are correlated to obtain an estimate of reliability (Carmines and Richard, 1979). The advantage of internal consistency measures is that there is no need for a second test, and thus they are also widely used in practice. For this study reliability was checked by using Cronbach's alpha. The alphas for the current study were presented together with the research results in order to make the presentation more logical.

### **3.10.3 Ethical consideration**

Every one of the respondents had the right to participate or not, to be safe from physical or psychological harm, to be informed of all aspects of research task and to privacy. Moreover regarding confidentiality individual respondents was never being identified in reporting survey findings.

# CHAPTER FOUR: DATA ANALYSIS, RESULT AND DISCUSSION

## 4.1 Introduction

This chapter focuses on the description and analysis of the data collected to look into the mediating effect of individual performance on the relationship between workplace diversity and team effectiveness in kolfe keraniyo sub-city. Most of the related data were collected using questionnaires distributed to employees of the selected sub-city.

Employees from both operational and managerial position of the sub-city are involved in responding the questionnaires. It also presents findings and the discussion about the mediating effect of workplace diversity on the relationship between individual performance and team effectiveness in kolfe keraniyo sub-city. To analyze the collected data in line with the overall objective of the research undertaking, statistical procedures were carried using Statistical Package for the Social Sciences (SPSS) version 20.00.

## 4.2 Survey Response Rate and Reliability Test

A Total of 101 questionnaires were administered and a total of 87 questionnaires were collected of which 7 were incomplete thus 80 questionnaires were subject for the analysis which is 80.00% response rate. According to Mugenda and Mugenda (2003) the statistically significant response rate for analysis should be at least 50%.

**Table 4-1: Response Rate of The study**

	<i>Number of Questionnaire</i>	<i>Percent</i>
<i>Completed</i>	<i>80</i>	<i>80%</i>
<i>Not completed</i>	<i>21</i>	<i>21%</i>
<i>Total</i>	<i>101</i>	<i>100%</i>

*Source: - Own survey result, December 2017*

The questionnaire were developed in five scales ranging from five to one; where 5 represents strongly disagree, 4 disagree, 3 neutral (no opinion), 2 agree, and 1 strongly agree. To make easy interpretation, the following ranges of values were reassigned to each scale: mean scored value less than 3 considered as “Disagree”, mean scored value greater than 3 considered as “Agree” and the mean scored value equal to 3 considered as “Neutral” (cited in Yonas, 2013). Descriptive statistics were used and also correlation and regression

analysis were conducted for scale typed questionnaires. In order to know the current information of the sub-city with regard to the mediating effect of workplace diversity on the relationship between individual performance and team effectiveness in kolfe keraniyo sub-city, the entire questionnaires used are attached at the back. You can refer from appendix part.

**Table 4-2: Reliability test**

<i>Measurement scales</i>	<i>Cronbach- alpha</i>	<i>No. of items</i>
<i>Workplace Diversity</i>	<i>.753</i>	<i>6</i>
<i>Individual Performance</i>	<i>.761</i>	<i>7</i>
<i>Team Effectiveness</i>	<i>.791</i>	<i>18</i>
<i>total</i>		<i>31</i>

**Source: - Own survey result, December 2017**

After coding and entry of data into SPSS version 20, the first analysis conducted was to check the reliabilities of the scales used in the data collection instrument. According to Malhotra & Birks (2007), reliability is the extent to which a measurement reproduces consistent results if the process of measurement were to be repeated. Cronbach-alpha, a widely used measure of internal consistency, was run using SPSS version 20 and all of the scales used for this study are found to be reliable as their respective alpha values are higher than 0.6, and for most closer to 1. The cronbach - alpha of each scale is presented in the following table.

**Table 4-3 Gender \* Respondents Cross tabulation**

<b>Gender * Respondents Cross tabulation</b>			
<i>Count (gender)</i>			
<i>Respondents</i>			<i>Total in percent</i>
<i>Gender</i>	<i>Male</i>	<i>46</i>	<i>57.5%</i>
	<i>Female</i>	<i>34</i>	<i>42.5%</i>
<i>Total</i>		<i>80</i>	<i>100%</i>

**Source: - Own survey result, December 2017**

From table 4.3 we can see that from the total of 101 respondents at kolfe keraniyo sub-city, 46 of them are males and 34 of them are females. Among the selected respondents 46 (57.5

%) of them are male and 34 (42.5 %) of them are females. The result shows the proportions of female and male respondents to be somehow different.

**Table 4-4 Age \* Respondents Cross tabulation**

<b>Age * Respondents Cross tabulation</b>			
<i>Count (Age)</i>			
<i>Respondents</i>			<i>Total in percent</i>
<i>Age</i>	<i>20-29</i>	<i>60</i>	<i>75%</i>
	<i>30-39</i>	<i>16</i>	<i>20%</i>
	<i>40-49</i>	<i>3</i>	<i>3.8%</i>
	<i>50-65</i>	<i>1</i>	<i>1.3%</i>
<i>Total</i>		<i>80</i>	<i>100%</i>

*Source: - Own survey result, December 2017*

From table 4.4 we can see that from a total of 80 respondents at the sub-city, 75% were found at the age bracket of 20-29 years, 20% of the respondents were found at the age of 30-39 Years, also 3.8% of the respondents were found at the age of 30-39 and the remaining respondents that are 1.3 % were found above 50 years. Also we can see from the above table 85.8% of the total respondents fall below age group less than 35 years. This indicates that there are a large number of young employees in the sub-city.

**Table 4-5, Educational level \* Respondents Cross tabulation**

<b>Educational level * Respondents Cross tabulation</b>			
<i>Count (Educational level of the respondents)</i>			
<i>Respondents</i>			<i>Total in percent</i>
<i>Educational level</i>	<i>Certificate</i>	<i>1</i>	<i>1.3%</i>
	<i>Diploma</i>	<i>15</i>	<i>18.8%</i>
	<i>Degree</i>	<i>61</i>	<i>76.3%</i>
	<i>Masters</i>	<i>3</i>	<i>3.8%</i>
<i>Total</i>		<i>80</i>	<i>100%</i>

*Source: - Own survey result, December 2017*

From the table 4.5, we can see that from the total of 80 respondents 61 of them or 76.3 % of them have First degrees, 3 of them or 3.8% of them have Master's Degree, 15 that is 18.8 %

of the respondents have their Diploma and the remaining 1 or 01.3% of the respondents have a certificate. This indicates that most of the employees in the sub-city are Degree holders.

**Table 4-6, Experience \* Respondents Cross tabulation**

<b>Experience * Respondents Cross tabulation</b>			
<i>Count (Experience)</i>			
<i>Respondents</i>			<i>Total in percent</i>
<i>Experience</i>	<i>0-5</i>	<i>56</i>	<i>70.0%</i>
	<i>6-10</i>	<i>15</i>	<i>18.8%</i>
	<i>10-15</i>	<i>7</i>	<i>8.8%</i>
	<i>15-40</i>	<i>2</i>	<i>2.5%</i>
<i>Total</i>		<i>80</i>	<i>100%</i>

**Source: - Own survey result, December 2017**

The work experience of the respondents across the sub-city is presented in table 4.6 above. Out of the 80 respondents who answered this question, 70% of the employees have an experience of less than 5 years in sector whereas, 18.8% of the respondents“ have an experience more than 5 years in addition8.8% of the employees have an experience of 10-15 years the remaining 2.5% of the respondents have an experience above 15 years.

**Table 4-7, Positions \* Respondents Cross tabulation**

<b>Positions * Respondents Cross tabulation</b>			
<i>Count (Position in the sub-city)</i>			
<i>Respondents</i>			<i>Total in percent</i>
<i>Position</i>	<i>Senior manager</i>	<i>19</i>	<i>23.8%</i>
	<i>Manager</i>	<i>5</i>	<i>6.3%</i>
	<i>Senior executive</i>	<i>14</i>	<i>17.5%</i>
	<i>Executive</i>	<i>15</i>	<i>18.8%</i>
	<i>Entry level</i>	<i>27</i>	<i>33.8%</i>
<i>Total</i>		<i>80</i>	<i>100%</i>

**Source: - Own survey result, December 2017**

From table 4.7 we can see that from a total 80 respondents at the sub-city 19 of them or 23.8% of them are Senior manager, 5 of them or 6.3 % are Manager, 14 of them or 17.5 % are Senior executive, 15 of them or 18.8 % of them are Executives, and the remaining 27 or 33.8% of the respondents are fresh employees. This implies most of the respondents are fresh or entry level employees and executive level employees.

**Table 4-8, Ethnicity \* Respondents Cross tabulation**

<b>Ethnicity * Respondents Cross tabulation</b>			
<i>Count (Ethnicity)</i>			
<i>Respondents</i>		<i>Total in percent</i>	
<i>Ethnicity</i>	<i>Oromo</i>	<i>23</i>	<i>28.8%</i>
	<i>Amhara</i>	<i>23</i>	<i>28.8%</i>
	<i>Tigray</i>	<i>8</i>	<i>10.0%</i>
	<i>SNNP</i>	<i>26</i>	<i>32.5%</i>
<i>Total</i>		<i>80</i>	<i>100%</i>

**Source: - Own survey result, December 2017**

From table 4.8 we can see that from a total of 80 respondents at the sub-city 26 or 32.5% of the respondents are from SNNP, 23 or 28.8% of the respondents are Oromo, similarly 23 or 28.8% of the respondents are Amhara, and the remaining 8 or 10% of the respondents are employees from Tigray, This implies that most of the respondents are from SNNP of Ethiopia.

## **4.3 Research Findings**

### **4.3.1 Analysis of questionnaire**

The main objective of the study is to look into the mediating role of individual performance in the relationship of diversity and team effectiveness. This section is used to present and analyze the data collected using questionnaire regarding mediating effect of the factors of diversity in the relationship of individual performance and team effectiveness in the sub-city.

**Table 4-9, Level of Workplace Diversity – sub-city Employees Perception**

<i>Descriptive Statistics</i>			
	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>Diversity</i>	<i>80</i>	<i>13.7625</i>	<i>3.34983</i>
<i>Individual performance</i>	<i>80</i>	<i>21.7000</i>	<i>4.53230</i>
<i>Valid N (listwise)</i>	<i>80</i>		

**Source: - Own survey result, December 2017**

As compared the researcher find out that the individual performance is the highest with the mean score 21.7 while Diversity is at the lowest level with the mean score of 13.76. Hence, the organizations employees perceive that the process of team effectiveness is highly organized around individual performance while the effect of diversity is lower.

**Table 4-10 Workplace diversity**

<i>Descriptive Statistics</i>			
	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>Gender</i>	<i>80</i>	<i>1.42</i>	<i>.497</i>
<i>Age</i>	<i>80</i>	<i>1.31</i>	<i>.608</i>
<i>Education</i>	<i>80</i>	<i>2.83</i>	<i>.497</i>
<i>Experience</i>	<i>80</i>	<i>1.44</i>	<i>.760</i>
<i>Position</i>	<i>80</i>	<i>3.33</i>	<i>1.573</i>
<i>Ethnicity</i>	<i>80</i>	<i>3.44</i>	<i>2.555</i>
<i>Valid N (listwise)</i>	<i>80</i>		

**Source: - Own survey result, December 2017**

From the above table we can see that the highest mean was recorded for ethnicity among employees is included in the work process 3.44, and the least mean to the question which asks about age of employee which is a mean of 1.31. Thus we can infer from the above result that workplace diversity in the sub-city is concentrated around ethnicity or most of the employees are ethnically diversified.

**Table 4-11 Team effectiveness**

<i>Descriptive Statistics</i>			
	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>Everyone in the team does know and understand the team objectives.</i>	80	2.27	1.147
<i>Everyone in the team is open and honest.</i>	80	2.50	1.243
<i>All the team members help one another and work together to achieve team objectives.</i>	80	2.03	.914
<i>Team members share information and ideas.</i>	80	1.93	.991
<i>Team members contribute ideas to help make decisions in the group.</i>	80	2.01	.974
<i>All the team members demonstrate initiative to help the team.</i>	80	2.34	1.043
<i>The team is productive and achieves its goals.</i>	80	2.04	.934
<i>Team members focus on individual objectives rather than team goals?</i>	80	2.58	1.320
<i>Team activities well-coordinated and organized.</i>	80	2.23	1.055
<i>As a result of current communication methods team progress is very well.</i>	80	2.23	.968
<i>Does the team monitor its progress and offer suggestions for improvement.</i>	80	2.35	1.045
<i>Team members display loyalty to one another.</i>	80	2.36	1.082
<i>Team members are tolerant of one another.</i>	80	2.00	.968
<i>Members in the team are flexible and help each other.</i>	80	2.08	1.016
<i>The team and its members adapt to change very quickly.</i>	80	2.54	1.030
<i>The distributions of work among team members are fair and even.</i>	80	2.32	1.065
<i>Morale within the team is very high.</i>	80	2.36	1.128
<i>Friction or conflict between team members occur very often.</i>	80	2.76	1.117
<i>Valid N (listwise)</i>	80		

*Source: - Own survey result, December 2017*

From the above table we can see that the highest mean was recorded for Friction or conflict between team members occur very often is included in the work which has a mean of 2.76 and the least mean to the question which asks about Team members share information and ideas employee which is a mean of 1.92. Thus we can infer from the above result that diversity leads to Friction or conflict between team members.

**Table 4-12 Individual performance**

<i>Descriptive Statistics</i>			
	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>There is a high incidence of short term absences</i>	<i>80</i>	<i>2.55</i>	<i>1.054</i>
<i>Team member consistently misses deadlines</i>	<i>80</i>	<i>2.75</i>	<i>1.119</i>
<i>Team members consistently delivers poor quality work</i>	<i>80</i>	<i>3.29</i>	<i>1.093</i>
<i>Members in the team regularly disturbs other team members for help</i>	<i>80</i>	<i>2.48</i>	<i>1.102</i>
<i>I complained about the interruptions</i>	<i>80</i>	<i>2.56</i>	<i>1.077</i>
<i>Member in the team is in regular disagreement with other team members</i>	<i>80</i>	<i>3.23</i>	<i>1.125</i>
<i>One team member is regularly in disagreement with staff out-with the team</i>	<i>80</i>	<i>3.32</i>	<i>1.199</i>
<i>Valid N (listwise)</i>	<i>80</i>	<i>2.55</i>	<i>1.054</i>

**Source: - Own survey result, December 2017**

The above table shows the research findings on whether individual performance encouraged team effectiveness, the highest mean was recorded for the question, One team member is regularly in disagreement with staff out-with the team, to be 3.32 and the least mean was for the question, Members in the team regularly disturbs other team members for help with a mean to be 2.48. Thus we can depict from the above result that there exists a regular disturbance caused by individuals in the team which can make the process of team effectiveness harder.

#### 4.4 The relationship between the study variables

The correlation matrix with the dependent, mediating and independent variables allows the researcher to assess the strength of the association between the variables of interest. The correlation matrix for the Overall sample is provided below.

**Table 4-13, Correlation**

		<b>Correlations</b>		
		Team effectiveness	Diversity	Individual performance
Team effectiveness	Pearson Correlation	1	.302**	.172
	Sig. (2-tailed)		.006	.128
	N	80	80	80
Diversity	Pearson Correlation	.302**	1	.082
	Sig. (2-tailed)	.006		.467
	N	80	80	80
Individual performance	Pearson Correlation	.172	.082	1
	Sig. (2-tailed)	.128	.467	
	N	80	80	80

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Source: - Own survey result, December 2017**

To determine the existence and level of association, the researcher used bivariate correlation. Pearson's correlation coefficient falls between -1.0 and +1.0, indicates the strength and direction of association between the two variables. (Field, 2005) The Pearson's correlation coefficient (r) was used to conduct the correlation analysis to find the level and direction of the relationships between the workplace diversity, team effectiveness and individual performance. The classification of the correlation coefficient (r) is as follows: 0.1 –0.29 is weak; 0.3 – 0.49 is moderate; and > 0.5 is strong (Field, 2005). Diversity has a moderated correlation of  $r=0.302$ , where  $p < 0.5$  with team effectiveness and individual performance has weak correlation with  $r= 0.172$ , where  $p < 0.29$  this signifies that the weakness of the relationship between this two variables which is the mediating and dependent variables. That means diversity and team effectiveness has a moderated and positive correlation and individual performance has a weak and positive correlation with team effectiveness.

## 4.5 Test of Regression Assumptions

### 4.5.1 Linear Relationship

Team effectiveness is assumed to be linearly related with the individual performance and workplace diversity; meaning the dependent variable Team effectiveness Practice is assumed to be impacted with changes in the individual performance and workplace diversity. The plot that shows the linear relationship of each independent variable with the dependent one is annexed (see appendix two, p 93).

### 4.5.2 No Multicollinearity

Multicollinearity is tested in this study using the variance inflation factor (VIF) which quantifies the severity of multicollinearity in regression analysis. The VIF factor should not exceed 10, and should ideally be close to one. The table below shows there is no multicollinearity exists. Tolerance is an indicator of how much of the variability of the specified independent variable is not explained by the other independent variables in the model. If this value is very small (less than 0.10), it indicates that the multiple correlation with other variables is high, suggesting the possibility of multicollinearity. The table below confirms the absence of multicollinearity according to Collinearity Statistics. VIF factor did not exceed 10 and the tolerance is above 0.1 which shows us there is no multi- Collinearity problem.

**Table 4-14, multicollinearity**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	21.724	6.718		3.234	.002		
diversity	.867	.322	.290	2.692	.009	.993	1.007
ipperform	.361	.263	.148	1.371	.174	.993	1.007

a. Dependent variable team effectiveness

**Source: - Own survey result, December 2017**

### 4.5.3 Auto-correlation

To determine the autocorrelation between observations Durbin – Watson test was used. The Durbin-Watson statistic ranges in value from 0 to 4. A value near 2 indicates non-autocorrelation; a value toward 0 indicates positive autocorrelation; a value toward 4 indicates negative autocorrelation. With Durbin Watson value of 1.645, which is close to 2, it can be confirmed that the assumption of independent error has almost certainly been met.

**Table 4-15 Level of auto-correlation**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.336 <sup>a</sup>	.113	.090	9.55487	1.645

a. Predictors: (Constant), iperform, diversity

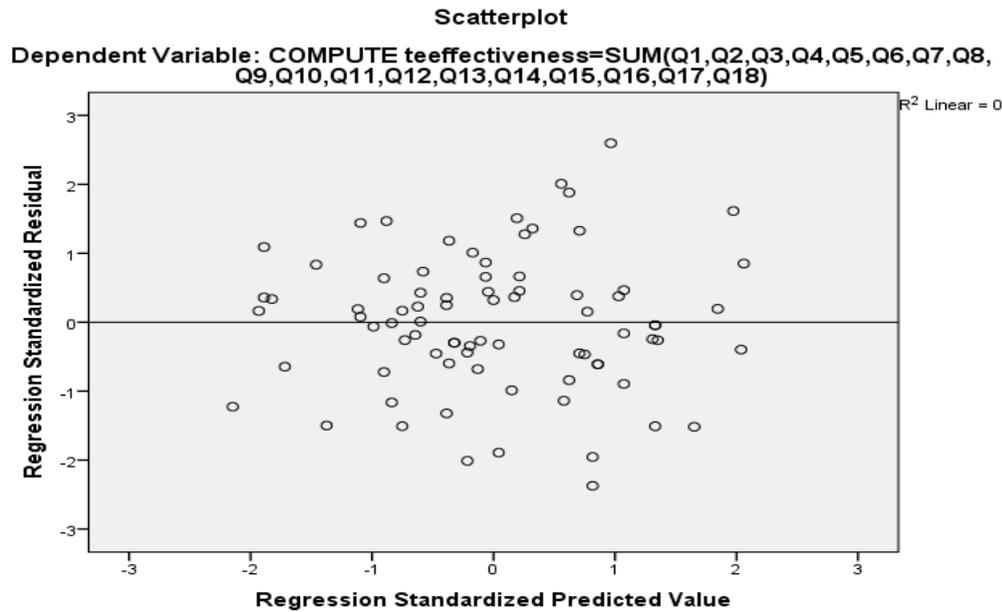
b. Dependent Variable: COMPUTE

teeffectiveness=SUM(Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,Q14,Q15,Q16, Q17,Q18)

**Source: - Own survey result, December 2017**

### 4.5.4 Homoscedasticity (Equal Variance)

The variability in scores for independent variables should be similar at all values of the dependent variable. The scatter plot should show a fairly even rectangular shape along its length. The plot must show scores below and above zero points that means both positive and negative values. There should be Homoscedasticity before running multiple regression analysis, (the difference between the values of the observed and predicted dependent variable) is normally distributed, and that the residuals have constant variance (Burns & Burns, 2008). If the assumption of Homoscedasticity is violated (i.e. there is heteroscedasticity). Since the errors (the dots) are close to the line the graph has demonstrated Homoscedasticity of the study.



**Figure 4.9 Homoscedasticity**

Source: - Own survey result December 2017

#### **4.5.5 Normality**

In terms of this assumption, a check for normality of the error term is conducted by a visual examination of the normal probability plots of the residuals. The plots are different from residuals plots in that the standardized residuals are compared with the normal distribution. In general, the normal distribution makes a straight diagonal line, and the plotted residuals are compared with the diagonal. If a distribution is normal, the residual line will closely follow the diagonal. The normality plot of this study fit with the assumption. The plots are annexed (see appendix two, p 93).

#### **4.5.6 Multiple Regressions**

After the study met the regression assumptions, next the researcher examined the effect of each of variables on team effectiveness. The researcher tested the four hypothesis set out to be tested at the beginning based on the regression analysis. The researcher believes that the sub-city can use the result of the regression analysis for future decision making via identifying which factors got the highest effect on team effectiveness in the sub city. This will answer the research question of the effect of each variable (individual performance and workplace diversity) on the dependent variable team effectiveness.

**Table 4-16 R square level of the study**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.336 <sup>a</sup>	.113	.090	9.55487

a. Predictors: (Constant), iperform, diversity

**Source: - Own survey result, May 2016**

The result of regression analysis of the independent variables on the dependent variable team effectiveness indicates existence of positive and statistically significant effect. The model summary table Adjusted R-square value is 0.090 which means that 9.0% of the team effectiveness is explained by the variation of the two independent variables and the other 91.00% is due to other independent variables not included in the model and the random error. Thus the strength of the relationship between dependent and independent variables is very weak, as R-square is extremely low.

**Table 4-17, ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	894.926	2	447.463	4.901	.010 <sup>b</sup>
Residual	7029.762	77	91.296		
Total	7924.688	79			

a. Dependent Variable: COMPUTE

teeffectiveness=SUM(Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,Q14,Q15,Q16,Q17,Q18

) b. Predictors: (Constant), iperform, diversity , Source: - Own survey result, December 2017, Source: - Own survey result, December 2017

The ANOVA tells us whether the model, overall, results in a significantly good degree of prediction of the outcome variable (Field, 2005). Since the significance result on the ANOVA table is 0.010 which is  $p < 0.05$ , the regression analysis proved the presence of a good degree of prediction. The contribution of each variable can be seen from the results of multiple regressions in the coefficient table below.

**Table 4-18 Coefficients of the variables  
Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	21.724	6.718		3.234	.002		
diversity	.867	.322	.290	2.692	.009	.993	1.007
ipperform	.361	.263	.148	1.371	.174	.993	1.007

a. Dependent variable team effectiveness

Source: - Own survey result, December 2017

From the above table one can see that all the variable positively affect team effectiveness. The degree of effects of each variable towards knowledge team effectiveness is ranked in the following manner on the basis of their effect;

***Workplace diversity B=0.867***

***Individual performance B=0.361***

The beta value on the coefficient table indicates level of effect of each variable has on the dependent variable team effectiveness. The highest beta level is for Workplace diversity B=0.867. This means that the more the sub city work on their diversified workforce the more the teams could be effective. Hence, if assumed that other things remained constant and team diversity increased by one unit, it increases team effectiveness by 0.867.

The second highest beta value is for individual performance B=0.361 which means that when other things are remained constant if individual performance increased by one unit, it increases team effectiveness by 0.361. Therefore, among the variable affecting team effectiveness in the sub city, workplace diversity has the strongest effect and should be given the highest focus.

## 4.6 Test for mediation

### Causal Steps Approach

The causal steps procedure is the most widely implemented procedure for testing a mediation hypothesis (Baron & Kenny, 1986; Hyman, 1955). The popularity of this approach is no doubt due in part to how easy it is to understand and implement. In essence, the causal steps procedure requires the investigator to conduct a set of hypothesis tests for each link in a path diagram. A failure to reject one or more of the null hypotheses leads one to claim an absence of evidence of mediation.

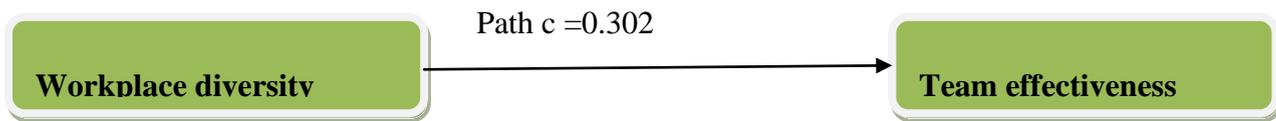
Applied to a simple mediation model as in Figure 4.14, the causal steps approach first asks whether there is evidence of an effect to be mediated. That is, is the total effect of X on Y (i.e., path c in Figure 4.14) statistically significant? If not, the investigator cannot claim mediation, as an effect that does not exist cannot be mediated, and further testing stops. Presuming that there is evidence of a relationship between X and Y, the investigator then tests for evidence that X is related to M (path a in Figure 4.14). Again, in the absence of a statistically significant relationship in a model predicting M from X, testing for mediation stops and the investigator claims no mediation effect. However, if this condition is met, the investigator then asks whether M is significantly related to Y after controlling for X (path b in Figure 4.14). If not, the investigator claims no mediation. If b is significant, then the investigator examines the relative size of c and the partial effect of X on Y controlling for M (path c' in Figure 4.14). If all effects are in the direction consistent with the proposed mediation process, c' will typically be closer to zero than c is. If c' is not statistically significant, the investigator claims that M completely mediates the effect of X on Y. But if c' remains significant but closer to zero than c, then this supports a claim of partial mediation—that some but not all of the effect of X on Y is carried through M.

#### 4.6.1. Mediation analysis

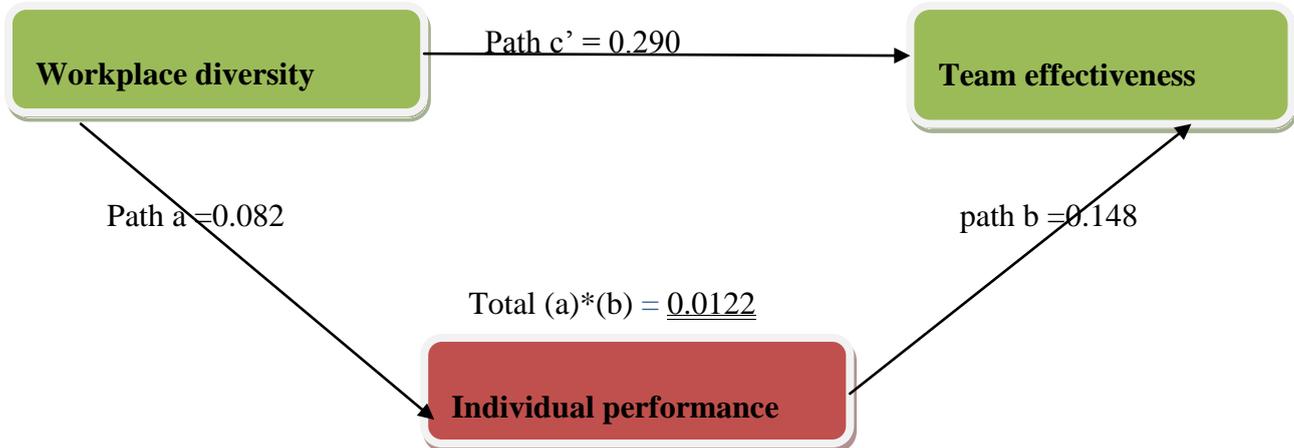
We could describe the direct and indirect effects of X on Y statistically, using two linear equations as shown below (Hayes, 2012, 2013).

Figure 4.13 illustrates the simple mediation model, in which X transmits its effect on Y through a single mediator variable M. The tracing rules of path analysis tell us that the effect of X on Y in this model can be partitioned into components by tracing the paths along which one can travel in the diagram to get from X to Y while never moving in a direction

opposite to the direction of presumed causal flow. In a simple mediation model, the total effect is the sum of direct ( $c$ ) and indirect effects ( $ab$ ).



**Figure 4.10, mediation not in the model**



**Figure 4.11, mediation in the model**

The direction of causal flow is denoted in a path diagram by the direction of the arrow. The total effect of X on Y in any causal diagram is quantified quite simply as the regression coefficient in a model predicting Y from X, denoted in Figure 4.14 as  $c$ . This total effect in a simple mediation model can be partitioned into two components. The direct effect of X on Y is the  $c'$  path in Figure 4.14, quantified as the unstandardized regression weight for X in a model predicting Y from both X and M. It quantifies how two cases which differ by one measurement unit on X but which are equal on M (i.e., adjusting or controlling for M) are expected to differ on Y. The second component is the indirect effect of X on Y through M, which consists of the product of the (a) and (b) paths in Figure 4.3. The a path is the regression weight in a model estimating M from X, and the b path is the partial regression weight for M in a model estimating Y from both X and M. In a model with only observed (rather than latent) variables, the direct and indirect effects of X sum to produce the total effect of X. That is,  $c = c' + ab$ . Simple algebraic manipulation shows that the indirect effect is the difference between the total and direct effect,  $ab = c - c'$ . So the indirect effect quantifies the change in the effect of X on Y after controlling for M's effect on Y. 1

Using the data collected through questionnaire, the researcher estimated the direct, indirect, and total effects of diversity (X) on team effectiveness (Y), with individual performance (M) as the proposed mediator. The first step is to estimate the total effect of diversity on

team effectiveness, derived by regressing team effectiveness on diversity. In these data,  $c = 0.302$ . So teams who differ by one unit in their diversity are estimated to differ by 0.302 units in their team effectiveness role. Although these data come from a correlational design, a very liberal causal interpretation would be that if we could move teams upward one unit on the diversity scale, we would expect that their role in team effectiveness would increase by 0.302 units in the team.

According to the model in Figure 4.14, some of the change in team effectiveness that we would expect to occur by increasing a team's diversity would occur by changing individual performance, which in turn would affect how much that person learns about team effectiveness. This is the indirect effect of diversity on team effectiveness through individual performance. But some of the effect of diversity on team effectiveness is direct, occurring either without the aid of individual performance, or through some other mechanism not included in this simple mediation model. Just how much of this effect of X on Y is direct and how much is indirect through individual performance?

To answer this question, we must estimate the direct and indirect effects. The indirect effect of diversity on team effectiveness is estimated as the product of the effect of diversity on individual performance (a) and the effect of individual performance on team effectiveness (b).

**Table 4-19 Coefficient for the mediating effects**

Testing paths	B	SE(b)	95%CI	$\beta$	$sr^2$
Path c; DV=Team effectiveness					
R Square=.091, F(1,78) = 7.836 , P=0.006					
IV=Diversity	0.903	0.323	0.261,1.546	0.302	0.302%
Path a; DV=Individual performance					
R Square=.082, F(1,78) = 0.533 , P=0.467					
IV=diversity	0.101	0.138	-0.174, 0.375	0.082	0.082%
Path b & c; DV= Team effectiveness					
R Square=.336, F(2,77) = 4.901 , P=0.010					
IV=Diversity	0.867	0.322	.226, 1.508	0.290	0.289%
IV=Individual performance	0.361	0.263	-.163,0.885	0.148	0.147%
Total (a)*(b)				0.0122	

**Source: - Own survey result December 2017**

## Results

The results revealed positive correlation between diversity and team effectiveness ( $r=.302$ ) and weak linear relationship between individual performance and team effectiveness ( $r=.148$ ). To test for mediation (Baron & Kenny method), three regression equations were run for each purpose. First, the outcome (team effectiveness) was regressed on the predictor variable (diversity). This relationship was significant ( $c = .302$  ( $p=.006$ )). Therefore, the researcher analyzed that the second and third equations. In the second equation, the mediator (individual performance) was regressed on the predictor variable (diversity). The result indicated that there was insignificant relationship between mediator and predictor variable ( $a = 0.082$  ( $p=.467$ )). The third equation involved regressing the outcome (team effectiveness) variable simultaneously on the predictor (individual performance) and mediator variable (diversity). The result indicated that the previously significant relationship between predictor (diversity) and the outcome (team effectiveness) remained significant ( $(c'=.290)$  ( $p=.0099$ )). Therefore, there is no evidence of mediator effect for individual performance in the relationship between team effectiveness and diversity (see Table 4.19 & Figure 4.14).

# Test for mediation using PROCESS Andrew F. Hayes,

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Release 2.16.3\*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)

\*\*\*\*\*

Model = 4  
 Y = teameffc  
 X = diversit  
 M = iperform

Sample size 80  
 \*\*\*\*\*

Outcome: iperform

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.0824	.0068	16.8788	.5333	1.0000	78.0000	.4674

Model

	coeff	se	t	p	LLCI	ULCI
constant	18.7883	1.9538	9.6163	.0000	14.8985	22.6780
diversit	.1008	.1380	.7302	.4674	-.1739	.3755

\*\*\*\*\*

Outcome: teameffc

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.3360	.1129	91.2956	4.9013	2.0000	77.0000	.0099

Model

	coeff	se	t	p	LLCI	ULCI
constant	21.7238	6.7176	3.2339	.0018	8.3474	35.1003
iperform	.3609	.2633	1.3706	.1745	-.1634	.8853
diversit	.8670	.3220	2.6924	.0087	.2258	1.5082

\*\*\*\*\* TOTAL EFFECT MODEL\*\*\*\*\*

Outcome: teameffc

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.3021	.0913	92.3240	7.8356	1.0000	78.0000	.0065

Model

	coeff	se	t	p	LLCI	ULCI
constant	28.5051	4.5695	6.2382	.0000	19.4080	37.6022
diversit	.9034	.3227	2.7992	.0065	.2609	1.5458

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS \*\*\*\*\*

Total effect of X on Y

Effect	SE	t	p	LLCI	ULCI
.9034	.3227	2.7992	.0065	.2609	1.5458

Direct effect of X on Y

Effect	SE	t	p	LLCI	ULCI
.8670	.3220	2.6924	.0087	.2258	1.5082

Indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
iperform	.0364	.0699	-.0463	.2611

Partially standardized indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
iperform	.0036	.0069	-.0047	.0245

Completely standardized indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
iperform	.0122	.0226	-.0153	.0807
Ratio of indirect to total effect of X on Y				
	Effect	Boot SE	BootLLCI	BootULCI
iperform	.0403	.1770	-.0634	.3489
Ratio of indirect to direct effect of X on Y				
	Effect	Boot SE	BootLLCI	BootULCI
iperform	.0419	.3560	-.0603	.5239
R-squared mediation effect size (R-sq_med)				
	Effect	Boot SE	BootLLCI	BootULCI
iperform	.0078	.0157	-.0083	.0589
Normal theory tests for indirect effect				
	Effect	se	Z	p
	.0364	.0671	.5419	.5879

\*\*\*\*\* ANALYSIS NOTES AND WARNINGS\*\*\*\*\*

Number of bootstrap samples for bias corrected bootstrap confidence intervals: 5000

Level of confidence for all confidence intervals in output: 95.00

NOTE: Kappa-squared is disabled from output as of version 2.16.

----- END MATRIX -----

## A simple mediation model

The idea of mediation is to find a mechanism that might reduce the strength of a total effect by reducing the correlation between an exogenous variable (X) and an outcome variable (Y). We could describe the direct and indirect effects of X on Y statistically, using two linear equations as shown below (Hayes, 2012, 2013).

$$M = aM + ax + em \dots \dots \dots 1$$

$$Y = ay + c1x + bm + ey \dots \dots \dots 2$$

Equation 1 describes the effect of X on M. Equation 2 describes the effect of both X and M on Y;  $\epsilon M$  and  $\epsilon Y$  are error terms while  $aM$  and  $a$  are constants. The indirect effect of X on Y is the product term  $ab$  where  $a$  is the coefficient of X in equation (1) and  $b$  is the coefficient of M in equation (2); the effect of M on Y controlling for X. The direct effect of X on Y is  $c1$ , the coefficient of X in equation (2). The direct effect is said to be significant if the coefficient  $c$  is non-zero and its confidence interval excludes a zero value. Similarly, the indirect effect of X on Y is said to be significant if the product term  $ab$  is non-zero and its confidence interval excludes a zero value. The total effect of X on Y given by, is estimated

as the sum of the direct and indirect effects of X on Y and is shown below (Hayes, 2013; Warner, 2013)

$$c = c1 + ab$$

From the above, the problem of a simple mediation analysis reduces to that of determining the proportion of the total effect that “passes through” a mediator variable (Hayes, 2013; Rose, 2013). Cases where the direct and indirect effects have different signs and the direct relationship strengthened, rather than weakened have been described as spurious and misleading mediations, and the mediating variable in this case, has been called a suppressor variable (Rose, 2013)

However, a mediation analysis where individual performance mediates the relationship between workplace diversity and team effectiveness and where the direct effect was less than the total effect would deny the claim in the research literature that these variables (individual performance) facilitate team effectiveness. This is because decomposition (a redistribution of effects) of the total effect into direct and indirect effects.

### **Analysis**

This analysis was conducted using an SPSS macro called PROCESS (Hayes, 2013). The independent variable was diversity (X), the dependent variable was team effectiveness (Y), and the mediating variable was individual performance (M) for the analysis. Workplace diversity (X) was computed by summing each of the manifestos incorporated in the questionnaire in this dissertation as satisfying the necessary and sufficient conditions. The Cronbach alpha for this scale was computed to be > 0.70.

### **A simple mediation analysis—individual performance as mediator variable**

With the PROCESS macro, the model = 4 specification instructs the program to calculate a bootstrapped simple mediation model using the variables indicated; boot=5000, requests 5000 bootstrap samples for estimating the 95% confidence interval for the indirect effects; and total = 1, instructs the PROCESS macro to also estimate and out put the total effects in addition to the direct and indirect effects (Hayes, 2013). Additionally a mediation analysis with process and bootstrapping (based on 5000 samples) was conducted in AMOS 22 yielding 95% bias-corrected confidence interval's (CI) for the relative indirect effects (Table 4.17). Yet, a mediation effect can be considered significant if the CI for the relative standardized effect does not comprise zero, in other words zero is not between the lower level (LL) and the upper level (UL) of the CI. As we can observe from the above process

procedure in both the indirect effect X on Y and completely standardized indirect effect X on Y, the CI for the relative standardized effect does exceed zero. That tells us there is no mediation.

## Results

The result of this analysis show that the total effect is statistically different from zero ( $c = 0.903$ ,  $p = 0.0065$ ). The direct effect ( $c1 = 0.0867$ ,  $p = 0.0087$ ) is less than the total effect. Its 95% confidence interval has value of (0.2258, 1.5082). Thus, this value is statistically different from zero. For the indirect effect, Hayes (2012, p.13) argued that evidence of indirect effect should not be based on the path coefficients but rather on estimation of the effect itself. This is because this estimation takes into consideration the non-normality of the sampling distribution of the product terms that comprise the indirect effect. For this analysis, the indirect effect has a positive value 0.0364) with a bootstrap confidence interval (-0.0463, 0.02611) straddling a zero value. This result is not statistically different from zero then this tells us that individual performance doesn't mediate the relationship between diversity and team effectiveness. The output tables for the total, direct and indirect effects are summarized and shown below.

**Table 4-20 Total direct and indirect effect table**

<i>Total effect of diversity (X) on team effectiveness (Y)</i>					
<i>Effect</i>	<i>SE</i>	<i>t-value</i>	<i>p-value</i>	<i>LLCI</i>	<i>ULCI</i>
<i>0.9034</i>	<i>0.3227</i>	<i>2.7992</i>	<i>.0065</i>	<i>.2609</i>	<i>1.5458</i>
<i>Direct of diversity (X) on team effectiveness (Y)</i>					
<i>Effect</i>	<i>SE</i>	<i>t-value</i>	<i>p-value</i>	<i>LLCI</i>	<i>ULCI</i>
<i>.8670</i>	<i>.3220</i>	<i>2.6924</i>	<i>.0087</i>	<i>.2258</i>	<i>1.5082</i>
<i>Indirect effect of diversity (X) on team effectiveness (Y)</i>					
	<i>effect</i>	<i>BootSE</i>	<i>BootLLCI</i>	<i>BootULCI</i>	
<i>Individual performance</i>	<i>0.0364</i>	<i>.0699</i>	<i>-0.0463</i>	<i>0.02611</i>	

## **Hypothesis testing**

**H10: Individual performance has a significant positive effect on team effectiveness.**

**H1a: Individual performance does not have significant positive effect team effectiveness.**

As shown from the above table Individual performance has a p-value greater than 0.05 which is insignificant. Therefore, the study accepts the alternate hypothesis that Individual performance does not have a significant effect on team effectiveness.

**H20: workplace diversity has a significant positive effect on Individual performance.**

**H2a: workplace diversity does not have a significant positive effect on Individual performance.**

As shown from the above table workplace diversity has a p-value greater than 0.05 which is insignificant. Therefore, the study accepts the alternate hypothesis that workplace diversity has a significant positive effect on Individual performance.

**H30: workplace diversity has a significant positive effect on team effectiveness.**

**H3a: workplace diversity does not have a significant positive effect on team effectiveness.**

As shown from the above table workplace diversity has a p-value less than 0.05 which is significant and the beta value is positive. Therefore, the study accepts the alternate hypothesis that workplace diversity does not have a significant positive effect on team effectiveness in Kolfe keraniyo sub city.

**H40: Individual performance does mediate the relationship between workplace diversity and team effectiveness.**

**H4a: Individual performance does not mediate the relationship between workplace diversity and team effectiveness.**

In order to test Hypotheses 4, steps for establishing mediation were followed (Baron & Kenny, 1986; Hyman, 1955). There was a significant positive correlation between diversity and team effectiveness. With all three requirements of mediation established, a multiple regression analysis with individual performance and diversity predicting team effectiveness was conducted. In a simple regression analysis, diversity was found to predict team

effectiveness ( $\beta = 0.302$ ,  $p < 0.006$ ). However, individual performance no longer did ( $\beta = 0.172$ ,  $p > 0.128$ , bootstrap =  $-0.0463 - 0.02611$ ) plus to that the Sobel test which is conducted online (annexed, see p 104) and Hayes process procedure also run and conformed the hypothesis Individual performance does not mediate the relationship between workplace diversity and team effectiveness ,therefore the study accepts this alternative hypothesis.

### **Summary of Major Findings**

The study was to investigate The Mediating Role of Workplace Diversity on the Relationship between Individual Performance and Team Effectiveness of Kolfe Keranyo Sub City. The key variables affecting Team Effectiveness were thought to be Individual Performance and Workplace Diversity; In addition the researcher taught individual performance mediate the dependent variable (diversity) and the independent variables (team effectiveness). A review of related literature and empirical studies informed the formulation of the research instrument used to obtain the research data. The results indicated that there was a positive relationship between the independent variables Workplace Diversity, and the dependent variable Team Effectiveness but individual performance neither has a significant relationship nor mediate workplace diversity and team effectiveness.

The findings indicated that majority of the employees tend to perceive that diversity leads to more conflict and disagreement in the workplace while individual performance as their opinion is a major input for the team effectiveness, in addition they suggested that most of the diversity in the sub city emanates from ethnicity difference but the balance of age diversity in the sub city is not well accommodated, more over the employee tend to think individuals does disagree with team members consistently which lead to decreased team effectiveness however there is less disturbance from team members for help exists .

# CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

Based on the findings this chapter provides the conclusions reached as to examine The Mediating Role of Individual Performance on the Relationship between Workplace Diversity and Team Effectiveness of Kolfe Keranyo Sub City and forward recommendations.

## 5.1 Conclusions

Due to the importance of work teams as the most important competitive advantage in today's organizations, the relevance of building an effective team does not leave any doubt for managers of organizations as a strategic binding. Today, the largest ambition of public organization is to provide quality service and satisfy their customers. Based on this study, due to the strategic importance of work teams, the variables affecting work team effectiveness have been investigated deeply. Therefore, this paper investigates the relationship between Workplace Diversity ,individual performance and team effectiveness furthermore the Mediating Role of Individual Performance on the relationship between Workplace Diversity and Team Effectiveness of Kolfe Keranyo Sub City and extraction of the relative role of each of these components in the process of building effective teams, are studied and regression analysis has been made and the following results are obtained:

Looking into the findings the mean result of the variables shows that, workplace diversity has the highest mean score (3.3419), followed by individual performance with mean score (3.2904). The mean results show room for improvement the sub city can work to look forward on the variables especially on the lowest scoring variables individual performance.

The paper examined the influence of individual performance in the relationship between diversity and team effectiveness, whether the relationship was influenced by a mediator effect. The result revealed that there was no mediator effect for individual performance in the relationship between diversity and team effectiveness. The result also indicated that there was insignificant direct effect with both Sobel, Goodman, and Aroian tests and bootstrapping. Those tests for indirect effect are valid when the assumption of normality of the sampling distribution can be met. Bootstrapping is powerful technique to calculate confidence interval for indirect effect without any assumptions about sampling distribution.

In addition regarding correlation of each variables with team effectiveness, workplace diversity has the highest correlation of  $r=0.302$ , and individual performance  $0.172$ . The multiple regression also shows that workplace diversity has the highest effect on team effectiveness with Beta value ( $B=0.290$ ), and individual performance ( $B=0.148$ ). In addition, in determining the relative contribution of each influential component in explaining and predicting of team effectiveness logically, team effectiveness respectively affected by “workplace diversity” and “individual performance”, components that they are important in properly building effective work teams. Overall the research can be concluded as follows:

1-Workplace diversity has a significant and positive effect on team effectiveness (confirm the first hypothesis).

2-Individual performance does not have significant effect but has positive effect on team effectiveness (confirm the second hypothesis).

3-Individual performance does not mediate the relationship between workplace diversity and team effectiveness (confirm the second hypothesis).

## 5.2 Recommendations

Based on the findings of the study the following recommendations are forwarded:

The study recommends that the sub city should endeavor to make greater emphasis for the representation of diversified human resource in their teams, which provides essential information for designing and implementing personnel functions such as recruitment, selection, reward and promotion, training and development.

The researcher recommends that looking into the two variables, diversity has the highest effect on team effectiveness with Beta value ( $B=0.302$ ), so the sub city should give priority for diversity management and the improvement of their diversified human resource in compared to the other dimension. In addition the researcher recommends that Procedures and work design systems should be redesigned to ensure the development of diversified, strong and functional teams.

Finally, the researcher recommends that in assessing indirect effects, researchers shall use bootstrapping and further studies shall be conducted in this regard.

### **5.3 Future Research**

The researcher suggests some researches that the academics and the researchers can conduct in the future:

- Studying on the factor affecting team effectiveness.

The same kind of study could be done with in other services (e.g., insurance company, hospitals, hotels, airlines and universities) because the applicability of work team practice may vary from one service to another Future studies could look into other possible factors affecting the team effectiveness.

A limitation of this study was that it only focused on personal and organizational factors. Further development of team effectiveness requires the study of other factors that can affect the effectiveness of teams.

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# APPENDIX

## Appendix I

### ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES

St.Mary's University

Binyam\_tadele@yahoo.com

Addis Ababa, Ethiopia

+251-910-58-71-87

**Dear Respondent,**

I am a graduate student at St.Mary's University, in partial fulfillment of the requirement for the degree of Masters of Business Administration (MBA). I am conducting a study to investigate the "The Mediating Effect of Workplace Diversity on the Relationship between Individual Performance and Team Effectiveness of kolfe keraniyo sub-city".

The information provided by respondents was protected by the principle of confidentiality. Your participation is very crucial for the accomplishment of this study and it was highly appreciated. If you have any questions or concerns with regards to the questionnaire, please do not hesitate to contact me at any time through my contact provided above.

**Note that:**

1. No need to write your name
2. Please fill the answer by making „√“ marks
3. Please give more attention and complete as fast as possible
4. Please complete and return it to the data collector found at your department.

**Thank you for your cooperation and time!!!**

**Yours Sincerely,**

**Binyam Tadele**

## **Part one: Demographic Information**

Please specify your answer by placing a (√) on the relevant answers provided. The following questions were used only in determining our sample demographics.

### **1. Gender**

[1] Male

[2] Female

### **2. Age**

[1] 20-29 years old  
years old and above

[2] 30-39 years old

[3] 40-49 years old

[4] 50

### **3. Educational Level**

[1] STPM

[2] Diploma

[3] Degree

[4] Master

[5] PhD

### **4. Work Experience**

[1] 0-5 years

[2] 6-10 years

[3] 10- 15 years

[4] more than 15 years

### **5. Position in the organization**

[1] Senior Manager

[2] Manager

[3] Senior Executive

[4] Executive

[5] Entry Level

### **6. Ethnicity**

[1] Oromo

[2] Amhara

[3] Tigray

[4] Somali

[5] Afar

[6] Benishangul Gumuz

[7] SNNP

[8] Harari

[9] Gambela

**Part two: Team Effectiveness and individual performance.**

**Direction: -Please answer on a scale of 1 – 5, where 1 = strongly agree 5 = strongly disagree, your opinion of the following statements. Please circle your response accordingly.**

Read through the following statement carefully		Please put (√) mark accordingly that MOST represents YOUR OPNION				
No.	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	Everyone in the team does know and understand the team objectives.					
2.	Everyone in the team is open and honest.					
3.	All the team members help one another and work together to achieve team objectives.					
4.	Team members share information and ideas.					
5.	Team members contribute ideas to help make decisions in the group.					
6.	All the team members demonstrate initiative to help the each other.					
7.	The team is productive and achieves its goals.					
8.	Team members focus on individual objectives rather than team goals.					
9.	Team activities well coordinated and organized.					
10.	As a result of current communication methods, team progress is very well.					
11.	Does the team monitor its progress and offer suggestions for improvement.					
12.	Team members display loyalty to one another.					
13.	Team members are tolerant of one another.					
14.	Members in the team are flexible and help each other.					

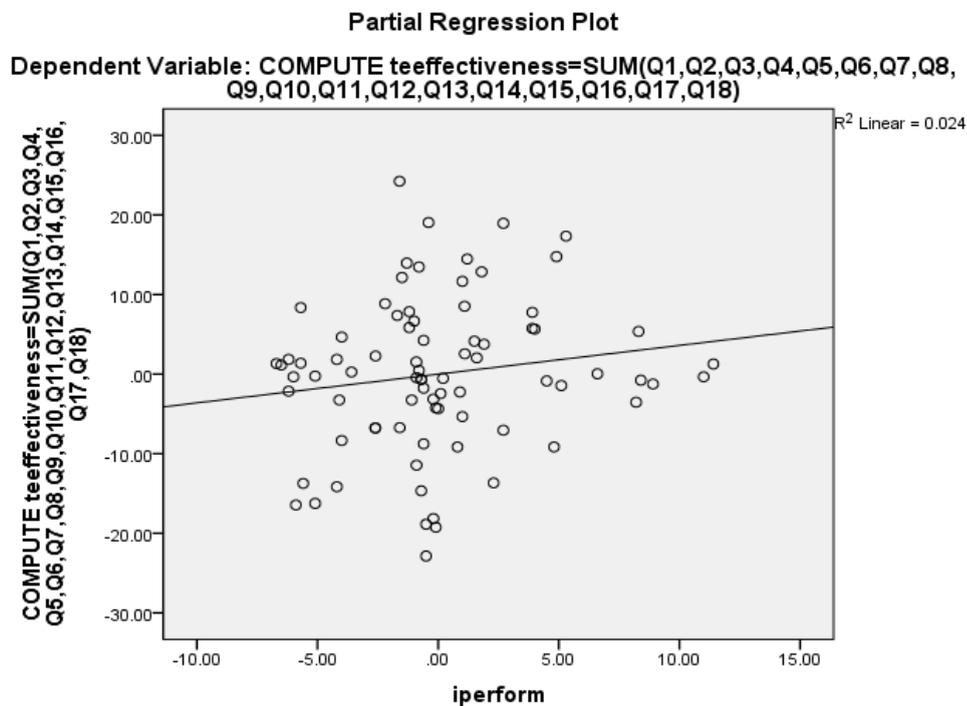
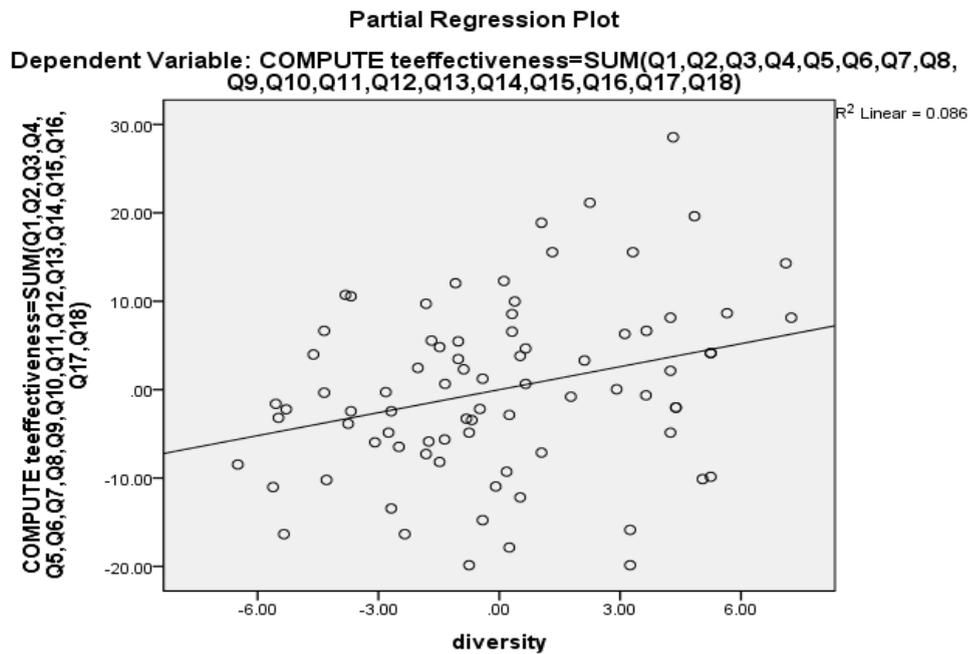
15.	The team and its members adapt to change very quickly.					
16.	The distributions of work among team members are fair and even.					
17.	Morale within the team is very high.					
18.	Friction or conflict between team members occur very often.					

	Individual Performance Issue	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	There is a high incidence of short term absences					
2	Team member consistently misses deadlines					
3	Team members consistently delivers poor quality work					
4	Members in the team regularly disturbs other team members for help					
5	I complained about the interruptions					
6	Member in the team is in regular disagreement with other team members					
7	One team member is regularly in disagreement with staff out-with the team					

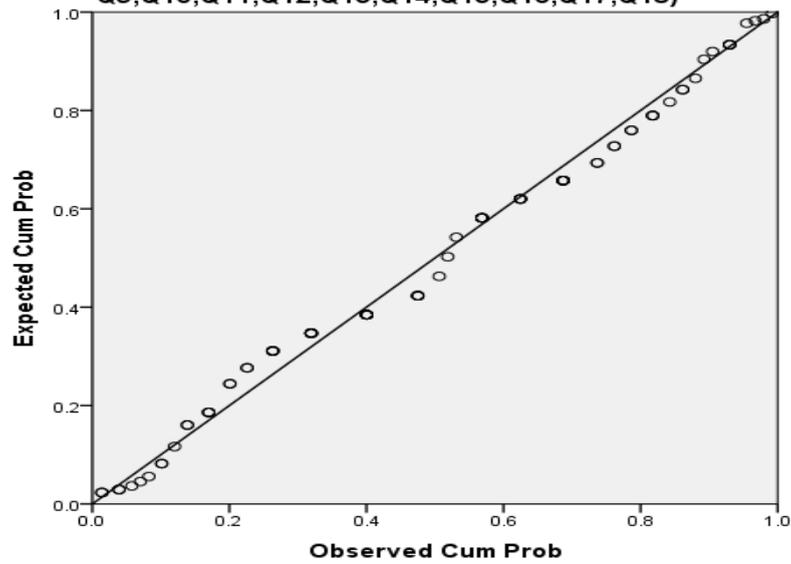
**THANK YOU!!!**

## Appendix II

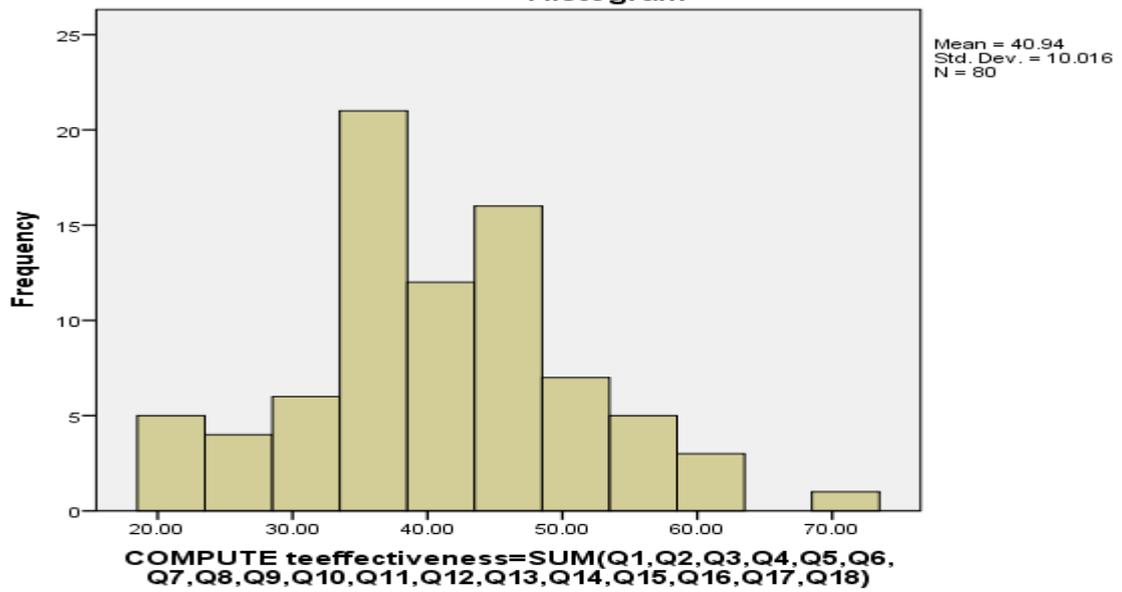
### SPSS output



Normal P-P Plot of COMPUTE teeffectiveness=SUM(Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,Q14,Q15,Q16,Q17,Q18)



Histogram



## Frequency Table

### Everyone in the team does know and understand the team objectives.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	24	30.0	30.0	30.0
Valid agree	28	35.0	35.0	65.0
Valid neutral	12	15.0	15.0	80.0
Valid disagree	14	17.5	17.5	97.5
Valid strongly disagree	2	2.5	2.5	100.0
Total	80	100.0	100.0	

### Everyone in the team is open and honest.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	22	27.5	27.5	27.5
Valid agree	20	25.0	25.0	52.5
Valid neutral	19	23.8	23.8	76.3
Valid disagree	14	17.5	17.5	93.8
Valid strongly disagree	5	6.3	6.3	100.0
Total	80	100.0	100.0	

### All the team members help one another and work together to achieve team objectives.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	25	31.3	31.3	31.3
Valid agree	35	43.8	43.8	75.0
Valid neutral	13	16.3	16.3	91.3
Valid disagree	7	8.8	8.8	100.0
Total	80	100.0	100.0	

### The team is productive and achieves its goals.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	23	28.8	28.8	28.8
Valid agree	39	48.8	48.8	77.5
Valid neutral	12	15.0	15.0	92.5
Valid disagree	4	5.0	5.0	97.5
Valid strongly disagree	2	2.5	2.5	100.0
Total	80	100.0	100.0	

### Team members focus on individual objectives rather than team goals?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	20	25.0	25.0	25.0
Valid agree	24	30.0	30.0	55.0
Valid neutral	15	18.8	18.8	73.8
Valid disagree	12	15.0	15.0	88.8
Valid strongly disagree	9	11.3	11.3	100.0
Total	80	100.0	100.0	

**Team activities well co-ordinated and organized.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	22	27.5	27.5	27.5
agree	31	38.8	38.8	66.3
neutral	16	20.0	20.0	86.3
disagree	9	11.3	11.3	97.5
strongly disagree	2	2.5	2.5	100.0
Total	80	100.0	100.0	

**As a result of current communication methods team progress is very well.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	17	21.3	21.3	21.3
agree	39	48.8	48.8	70.0
neutral	15	18.8	18.8	88.8
disagree	7	8.8	8.8	97.5
strongly disagree	2	2.5	2.5	100.0
Total	80	100.0	100.0	

**Does the team monitor its progress and offer suggestions for improvement.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	15	18.8	18.8	18.8
agree	37	46.3	46.3	65.0
neutral	17	21.3	21.3	86.3
disagree	7	8.8	8.8	95.0
strongly disagree	4	5.0	5.0	100.0
Total	80	100.0	100.0	

**Team members display loyalty to one another.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	17	21.3	21.3	21.3
agree	33	41.3	41.3	62.5
neutral	18	22.5	22.5	85.0
disagree	8	10.0	10.0	95.0
strongly disagree	4	5.0	5.0	100.0
Total	80	100.0	100.0	

**Team members are tolerant of one another.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	27	33.8	33.8	33.8
agree	34	42.5	42.5	76.3
neutral	13	16.3	16.3	92.5
disagree	4	5.0	5.0	97.5
strongly disagree	2	2.5	2.5	100.0
Total	80	100.0	100.0	

**Members in the team are flexible and help each other.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	25	31.3	31.3	31.3
Valid agree	35	43.8	43.8	75.0
Valid neutral	11	13.8	13.8	88.8
Valid disagree	7	8.8	8.8	97.5
Valid strongly disagree	2	2.5	2.5	100.0
Total	80	100.0	100.0	

**The team and its members adapt to change very quickly.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	9	11.3	11.3	11.3
Valid agree	38	47.5	47.5	58.8
Valid neutral	18	22.5	22.5	81.3
Valid disagree	11	13.8	13.8	95.0
Valid strongly disagree	4	5.0	5.0	100.0
Total	80	100.0	100.0	

**The distributions of work among team members are fair and even.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	18	22.5	22.5	22.5
Valid agree	33	41.3	41.3	63.8
Valid neutral	17	21.3	21.3	85.0
Valid disagree	9	11.3	11.3	96.3
Valid strongly disagree	3	3.8	3.8	100.0
Total	80	100.0	100.0	

**Morale within the team is very high.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	20	25.0	25.0	25.0
Valid agree	28	35.0	35.0	60.0
Valid neutral	19	23.8	23.8	83.8
Valid disagree	9	11.3	11.3	95.0
Valid strongly disagree	4	5.0	5.0	100.0
Total	80	100.0	100.0	

**Friction or conflict between team members occur very often.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	9	11.3	11.3	11.3
Valid agree	33	41.3	41.3	52.5
Valid neutral	7	8.8	8.8	61.3
Valid disagree	30	37.5	37.5	98.8
Valid strongly disagree	1	1.3	1.3	100.0
Total	80	100.0	100.0	

**There is a high incidence of short term absences**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	8	10.0	10.0	10.0
Valid agree	45	56.3	56.3	66.3
Valid neutral	3	3.8	3.8	70.0
Valid disagree	23	28.8	28.8	98.8
Valid strongly disagree	1	1.3	1.3	100.0
Total	80	100.0	100.0	

**Team member consistently misses deadlines**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	6	7.5	7.5	7.5
Valid agree	41	51.3	51.3	58.8
Valid neutral	3	3.8	3.8	62.5
Valid disagree	27	33.8	33.8	96.3
Valid strongly disagree	3	3.8	3.8	100.0
Total	80	100.0	100.0	

**Team members consistently delivers poor quality work**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	5	6.3	6.3	6.3
Valid agree	21	26.3	26.3	32.5
Valid neutral	3	3.8	3.8	36.3
Valid disagree	48	60.0	60.0	96.3
Valid strongly disagree	3	3.8	3.8	100.0
Total	80	100.0	100.0	

**Members in the team regularly disturbs other team members for help**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	11	13.8	13.8	13.8
Valid agree	44	55.0	55.0	68.8
Valid neutral	4	5.0	5.0	73.8
Valid disagree	18	22.5	22.5	96.3
Valid strongly disagree	3	3.8	3.8	100.0
Total	80	100.0	100.0	

**I complained about the interruptions**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	9	11.3	11.3	11.3
Valid agree	42	52.5	52.5	63.8
Valid neutral	6	7.5	7.5	71.3
Valid disagree	21	26.3	26.3	97.5
Valid strongly disagree	2	2.5	2.5	100.0
Total	80	100.0	100.0	

**Member in the team is in regular disagreement with other team members**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	3	3.8	3.8	3.8
Valid agree	28	35.0	35.0	38.8
Valid neutral	3	3.8	3.8	42.5
Valid disagree	40	50.0	50.0	92.5
Valid strongly disagree	6	7.5	7.5	100.0
Total	80	100.0	100.0	

**One team member is regularly in disagreement with staff out-with the team**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	4	5.0	5.0	5.0
Valid agree	25	31.3	31.3	36.3
Valid neutral	3	3.8	3.8	40.0
Valid disagree	37	46.3	46.3	86.3
Valid strongly disagree	11	13.8	13.8	100.0
Total	80	100.0	100.0	

# Bootstrap

## Notes

Output Created	27-DEC-2017 11:36:40	
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Resources	Processor Time	00:00:00.06
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## Bootstrap Specifications

Sampling Method	Stratified
Number of Samples	1000
Confidence Interval Level	95.0%
Confidence Interval Type	Percentile
Strata Variables	COMPUTE teeffectiveness=SUM(Q1,Q2, Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10 ,Q11,Q12,Q13,Q14,Q15,Q16 ,Q17,Q18), diversity, iperform

**Assumption of a multiple regression**

**Multivariate normality of the regression model (mahalanobis distance test for normality) not violated 16.98 is critical MAHAL and our max is 10.765**

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	33.7127	47.8710	40.9375	3.36574	80
Std. Predicted Value	-2.147	2.060	.000	1.000	80
Standard Error of Predicted Value	1.072	3.685	1.769	.546	80
Adjusted Predicted Value	33.8824	48.1553	40.9492	3.37252	80
Residual	-22.68121	24.81274	.00000	9.43315	80
Std. Residual	-2.374	2.597	.000	.987	80
Stud. Residual	-2.403	2.643	-.001	1.003	80
Deleted Residual	-23.25119	25.70482	-.01166	9.73506	80
Stud. Deleted Residual	-2.483	2.754	-.001	1.016	80
Mahal. Distance	.007	10.765	1.975	1.952	80
Cook's Distance	.000	.084	.011	.015	80
Centered Leverage Value	.000	.136	.025	.025	80

a. Dependent Variable: COMPUTE teeffectiveness=SUM(Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,Q14,Q15,Q16,Q17,Q18)

## Mediation using Simple linear regression

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.302 <sup>a</sup>	.091	.080	9.60854

a. Predictors: (Constant), diversity

b. Dependent Variable: COMPUTE  
teeffectiveness=SUM(Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,Q14,Q15,Q16,Q17,Q18)

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	723.418	1	723.418	7.836	.006 <sup>b</sup>
	Residual	7201.270	78	92.324		
	Total	7924.688	79			

a. Dependent Variable: COMPUTE  
teeffectiveness=SUM(Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,Q14,Q15,Q16,Q17,Q18)

b. Predictors: (Constant), diversity

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	Partial	Part
(Constant)	28.505	4.569		6.238	.000			
diversity	.903	.323	.302	2.799	.006	.302	.302	.302

a. Dependent variable team effectiveness

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.082 <sup>a</sup>	.007	-.006	4.10839

a. Predictors: (Constant), diversity

b. Dependent Variable: iperform

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.001	1	9.001	.533	.467 <sup>b</sup>
	Residual	1316.549	78	16.879		
	Total	1325.550	79			

a. Dependent Variable: iperform

b. Predictors: (Constant), diversity

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	Partial	Part
1 (Constant)	18.788	1.954		9.616	.000			
diversity	.101	.138	.082	.730	.467	.082	.082	.082

a. Dependent variable diversity

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.336 <sup>a</sup>	.113	.090	9.55487

a. Predictors: (Constant), iperform, diversity

b. Dependent Variable: COMPUTE teeffectiveness=SUM(Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,Q14,Q15,Q16,Q17,Q18)

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	894.926	2	447.463	4.901	.010 <sup>b</sup>
	Residual	7029.762	77	91.296		
	Total	7924.688	79			

a. Dependent Variable: COMPUTE teeffectiveness=SUM(Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,Q14,Q15,Q16,Q17,Q18)

b. Predictors: (Constant), iperform, diversity

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	Partial	Part
(Constant)	21.724	6.718		3.234	.002			
diversity	.867	.322	.290	2.692	.009	.302	.293	.289
iperform	.361	.263	.148	1.371	.174	.172	.154	.147

a. Dependent variable team effectiveness

## Sobel mediation test

Sobel test=0.66, p-value=0.508,  $p > 0.05$ , Insignificant, no mediation

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18.788	1.954		9.616	.000
	diversity	.101	.138	.082	.730	.467

a. Dependent Variable: iperform

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	32.477	5.614		5.785	.000
	iperform	.419	.273	.172	1.538	.128

a. Dependent Variable: COMPUTE teeffectiveness=SUM(Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,Q14,Q15,Q16,Q17,Q18)

### Quantpsy.org output

	Input:		Test statistic:	Std. Error:	p-value:
a	0.101	Sobel test:	0.66061743	0.06405977	0.50885769
b	0.419	Aroian test:	0.56944068	0.07431678	0.56905712
s <sub>a</sub>	0.138	Goodman test:	0.81680418	0.05181046	0.41404034
s <sub>b</sub>	0.273	Reset all	Calculate		

# T-Test

## Notes

Output Created	14-JAN-2018 07:28:21	
Comments		
Input	Data	C:\Users\Dell\Documents\masters mba ben.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	80
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on the cases with no missing or out-of-range data for any variable in the analysis.
Syntax	T-TEST PAIRS=diversit WITH iperformance (PAIRED) /CRITERIA=CI(.9500) /MISSING=ANALYSIS.	
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.01

[DataSet1] C:\Users\Dell\Documents\masters mba ben.sav

### Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 diversity	13.7625	80	3.34983	.37452
iperform	20.1750	80	4.09623	.45797

### Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 diversity & iperform	80	.082	.467

### Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 diversity - iperform	-6.41250	5.07337	.56722	-7.54152	-5.28348	-11.305	79	.000





