



**ST.MARRY'S UNIVERSITY  
SCHOOL OF GRADUATE STUDIES**

**THE EFFECT OF TEAMWORK ON ORGANIZATIONAL  
PERFORMANCE IN ETHIOPIAN HEALTHCARE INSTITUTIONS: THE  
CASE OF THE TIKUR ANBESA SPECIALIZED HOSPITAL**

**BY  
MERKEBU AYTENFISU  
ID NO.SGS/0110/2009A**

**June, 2020  
Addis Ababa, Ethiopia**

**THE EFFECT OF TEAMWORK ON ORGANIZATIONAL  
PERFORMANCE IN ETHIOPIAN HEALTH CARE INSTITUTIONS: THE  
CASE OF TIKUR ANBESA HOSPITAL**

**By: -**

**MERKEBU AYTENFISU**

**ID NO.SGS/0110/2009A**

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

**Advisor:**

**SHOA JEMAL (ASS, PROF)**

**SMU**

**June, 2020**

**Addis Ababa, Ethiopia**

**ST. MARRY'S UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**

**THE EFFECT OF TEAMWORK ON ORGANIZATIONAL  
PERFORMANCE IN ETHIOPIAN HEALTH CARE INSTITUTIONS: THE  
CASE OF TIKUR ANBESA HOSPITAL**

**By:-**

**MERKEBU AYTENFISU**

**Approved by Board of Examiners**

Dean of St Marry University Sgs

Signature &Date

-----

-----

Advisor

Signature & Date

-----

-----

External Examiner

Signature & Date

-----

-----

Internal Examiner

Signature & Date

-----

-----

## **DECLARATION**

I, Merkebu Aytenfisu Abab, hereby declare that the study entitled “**The Effect of teamwork on Organizational performance in Ethiopian Healthcare Institutions: The Case of Tikur Anbesa Specialized Hospital**” is my original work and has not been presented in St, marry University or any other University. I have carried out the study independently with the guidance and support of the research advisor Shoa Jemal (Ass,Prof). All other contributors or sources used for the study have been duly acknowledged.

**MERKEBU AYTENFISU** \_\_\_\_\_

**Signature**

**Date**

## ENDORSEMENT

This is to certify that Merkebu Aytenfisu Abab's project work on the topic entitled **“The Effect of teamwork on Organizational performance in Ethiopian Healthcare Institutions: The Case of Tikur Anbesa Specialized Hospital”** is his original work and suitable for submission for the award of Master's Degree in business Administration. The project paper is submitted for examination with my approval as a university advisor.

---

Shoa Jemal (Ass,Prof)

(Advisor)

June, 2020

## **ACKNOWLEDGEMENT**

First of all, the greater heartfelt gratitude goes to the Almighty God for all his blessings and wisdom enabling me to reach here. Secondly, I have to thank my advisor **Shoa Jemal (Ass, professor)** for his due attention to correct this project work and advising me without tiredness for the better improvement of this study.

Thirdly, I am very grateful to thank my family for everything they have done for me up to this moment and also my heart-felt thanks should also go to the healthcare professionals of Tikur Anbesa specialized Hospital for their willingness, participation and prompt response. Lastly, my dear brother who have been contributing a lot for the entire work deserve to be acknowledged, all had enormous role in supporting and inspiring me throughout my study.

## **ACRONYMS**

**TASH: Tikur Anbesa Specialized Hospital**

**OD: Organizational Development**

**HRM: Human resource management**

**IOA Model: Institutional and Organizational Assessment Model**

**BSC: Balanced Score Card**

**ANOVA -Analysis of Variance**

**SPSS - Statistical Package for Social Sciences**

**SD -Standard Deviations**

**SPMS - Strategic Performance Management System**

**NFPM -Non-Financial Performance Management**

# Table of Contents

	Page
Acknowledgement .....	VI
Acronyms. ....	VII
List of Tables.....	XI
List of Figures.....	XII
Annexes.....	XIII
Abstract.....	XIV
Chapter One.....	1
Introduction.....	1
1.1 Background of the study.....	1
1.2 Statement of the Problem.....	3
1.3 Research Questions.....	6
1.4 Research objectives.....	7
1.5 Significance of the study.....	7
1.6 Scope of the study.....	8
1.7 Limitations of the study.....	8
1.8 Organization of the study.....	9
1.9 Definition of key terms.....	9
Chapter Two.....	10
Literature Review.....	10
2.1 Introduction.....	10
2.2 Theoretical Review.....	10
2.2.1 Team.....	10
2.2.2 Teamwork .....	14
2.2.3 Performance .....	16
2.2.4 Teamwork and Organizational Performance.....	17
2.2.5 Performance Measurement.....	18
2.2.6 Organizational Performance Measurement.....	18



2.2.7	Organizational Performance Measurement Methods.....	20
2.2.8	Balance Scorecard.....	21
2.2.9	Balanced Score card for Governmental organizations.....	24
2.2.10	Benefits of Performance Measurement.....	24
2.3	Empirical review on Teamwork.....	25
2.3.1	Empirical review on Teamwork determinants.....	26
2.3.2	Empirical review on organizational performance.....	26
2.3.3	Empirical review on teamwork effect on organizational performance.....	27
2.3.4	Conceptual Framework of the Study.....	28
Chapter Three.....		30
Research Design and Methodology .....		30
3.2	Research Design and Approach .....	30
3.3	Types and sources of data.....	30
3.4	Target Population.....	31
3.5	Sampling Frame .....	31
3.6	Sample size.....	32
3.7	Data collection Method .....	33
3.8	Data Collection Procedure .....	33
3.9	Data Content.....	34
3.10	Validity and Reliability .....	34
3.11	Method of Data Analysis .....	35
Chapter Four.....		36
Data Presentation, Analysis and Interpretation.....		36
4.1	Introduction.....	36
4.2	Response Rate of the Respondents.....	36
4.3	Demographic Characteristics of the Respondents.....	36
4.4	Descriptive Analysis on teamwork.....	38
4.4.1	Practice of communication at TASH .....	39
4.4.2	Practice of adequate level of skills at TASH.....	40
4.4.3	Practice of meaningful purpose and specific at TASH.....	41
4.4.4	Practice of clear working approach at TASH.....	42
4.4.5	Practice of mutual accountability on Performance.....	44
4.5	Descriptive Analysis on Organizational Performance.....	45
4.6	Correlation Analysis.....	47
4.7	Multiple Regression Analysis .....	50
4.7.1	Skewness and Kurtosis.....	51
4.7.2	Normality Test.....	52
4.7.3	Multi Co linearity Statistics.....	54
4.7.4	Model Summary.....	55
4.7.5	ANOVA Test.....	55

<b>4.8 Multiple Regression Analysis.....</b>	<b>56</b>
<b>4.9 Hypothesis Testing .....</b>	<b>58</b>
<b>Chapter Five.....</b>	<b>61</b>
<b>Summary of Findings, Conclusions and Recommendations.....</b>	<b>61</b>
<b>5.1 Introduction.....</b>	<b>61</b>
<b>5.2 Summary of Findings .....</b>	<b>61</b>
<b>5.3 Conclusion.....</b>	<b>64</b>
<b>5.4 Recommendations .....</b>	<b>65</b>
<b>5.4.1 Recommendations to TASH.....</b>	<b>66</b>
<b>5.4.2 Recommendations for further studies .....</b>	<b>67</b>
<b>References.....</b>	<b>68</b>
<b>Annexes.....</b>	<b>I</b>
<b>Questionnaire.....</b>	<b>V</b>

## List of Tables

<b>Table 3.1 Population Distribution.....</b>	<b>33</b>
<b>Table 3.2 Result of reliability analysis for the questionnaire.....</b>	<b>35</b>
<b>Table 4.1 Response Rate of Respondents.....</b>	<b>36</b>
<b>Table 4.2 Demographic Characteristic of the Respondents.....</b>	<b>37</b>
<b>Table 4.3 The Communication teamwork parameter at TASH.....</b>	<b>39</b>
<b>Table 4.4 The Adequate level of skills teamwork parameter at TASH.....</b>	<b>40</b>
<b>Table 4.5 The purpose and goals teamwork parameter at TASH.....</b>	<b>42</b>
<b>Table 4.6 The Working Approach teamwork parameter at TASH.....</b>	<b>43</b>
<b>Table 4.7 The Sense of Mutual Accountability teamwork at TASH.....</b>	<b>44</b>
<b>Table 4.8 The Organizational Performance at TASH.....</b>	<b>46</b>
<b>Table 4.9 Correlation Analysis Matrix.....</b>	<b>48</b>
<b>Table 4.10 Skewness and Kurtosis of data .....</b>	<b>52</b>
<b>Table 4.11 Multi Collinearity Statistics table .....</b>	<b>54</b>
<b>Table 4.12 Model Summary of Regression Analysis.....</b>	<b>55</b>
<b>Table 4.13 Table of ANOVA.....</b>	<b>56</b>
<b>Table 4.14 Coefficient Table.....</b>	<b>57</b>

## List of Figures

<b>Figure 2.1: Katzenberg and Smith Teamwork Model.....</b>	<b>12</b>
<b>Figure 2.2: The Difference between Teams and Groups.....</b>	<b>16</b>
<b>Figure 2.3: Organizational performance assessment model.....</b>	<b>20</b>
<b>Figure 2.4: Balanced score card model.....</b>	<b>22</b>
<b>Figure 2.5: Conceptual Model of the Study.....</b>	<b>29</b>
<b>Figure 4.1: Normality Plot Graph.....</b>	<b>52</b>
<b>Figure 4.2: Histogram Graph.....</b>	<b>53</b>
<b>Figure 4.3: Scatter Plot Graph.....</b>	<b>53</b>

## **Annexes**

Annex 1: Normal Q-Q plot of communication.....	I
Annex 2: Normal Q-Q plot of adequate level of skills.....	II
Annex 3: Normal Q-Q plot of purpose and specific goals.....	II
Annex 4: Normal Q-Q plot of working Approach.....	III
Annex 5: Normal Q-Q plot of mutual accountability.....	III
Annex 6: Normal Q-Q plot of organizational performance.....	IV

## **ABSTRACT**

*The purpose of this study is to assess the effect of teamwork on organizational performance in case of Tikur Anbesa Specialized Hospital (TASH). Based on Katzenbach and Smith 1993 team performance model, five team basics identified to assess teamwork performance while balanced score card, except the financial perspective, was used to measure performance of the case organization. All healthcare professionals of TASH were the target population and respondents were selected from each department using Stratified non proportional sampling method. Primary data was gathered through questionnaire. The study was explanatory, and its structure was case study and. The study was also quantitative and cross-sectional. Multivariate regression analysis using SPSS was implemented to assess the effect of teamwork on organization performance.*

*The results revealed that teamwork has positively and significantly impacted the performance of TASH's performance into three variables, namely meaningful purpose and specific goals, working approach, and mutual accountability. Unlike other empirical studies, strikingly, the remaining two variables, namely communication and information flow & adequate level of skills and knowledge were found to have no effect on organizational performance of TASH. Based on the findings of the study, the research recommends that the TASH would undertake comprehensive examination of its teamwork performance and focus on these parameters to enhance its organization performance as one of a pioneer public referral hospital.*

**Key Words:** *Team, teamwork, performance, organizational performance, TASH, Ethiopia*

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the study

One of the most common job designs in a various type of organizations is designing jobs to be performed by teams or groups. It is becoming common to see that companies are giving attention that the best way to meet the challenges of higher quality, faster service, and total customer satisfaction is through an aligned, coordinated, and committed effort by all employees and organizing people into teams helps meet this objective. The concept of teamwork is a fundamental change in the way work is organized (Daft, 2008). The present-day dynamic competitions has forced organizations to center their focus on performance based organizational development activities (Swanson & Holton, 2009). A growing trend in organizations is to give more responsibility for important activities to teams, and in some cases, they are empowered to make decisions formerly made by individual managers. Several distinct types of teams can be found in organizations, including functional work teams, cross-functional teams, self-managed teams, and top executive teams (Gary Yukl 2013).

Alan (2003) defined teamwork as a grouping of professionals whose members work intensely on a specific, common goal using their positive synergy, individual mutual accountability and complementary skills. A lot of reasons can be mentioned why teams work better.

Teamwork brings together complementary skills and experiences that, by definition, exceed those of any individual on the team. Teams establish communications that support real-time problem solving and initiative which is very helpful in today's dynamic organizational environment (Katzenbach and Smith 1993). This confirms that team and teamwork is getting massive attention and focus in almost all organizational types of governmental, not profit or business organizations. Several models and methods are in the scientific arena to measure the team performance. Measuring and closely monitoring team performance in organizations is found to help to follow the alignment of team performance with organizational strategy. After studying and exploring the use of teams, Katzenbach and Smith 1993 explained that, the impact teams have, whether in being single team or collective impact teams have, is unexploited and with no significant attention given though the impact of teamwork is becoming undeniable. This paper will try to answer the question on the impact of teamwork on organizational

performance in healthcare provider institutions. Organizational performance deals with the concept of how organizations are effective in achieving the outcomes organizations planned to come up with. Teamwork was found in the most significant independent variable having the most significant impact on performance (Shouvik Sanyal, and Mohammed Wamique Hisam 2018). Prior scientific researches on the team and teamwork agreed as there is no all agreed upon standard or set of standards to determine the effectiveness of team and group performance (Keller, 1986; Hackman). So, different scholars suggested different team performance parameters to measure teamwork at different times (Guzzo and Dickson, 1996). Several team performance determinants can be listed, but this paper will narrow its scope to the five team basics explained by Katzenberg and Smith 1993 namely communication, adequate levels of complementary skills, truly meaningful purpose and specific goals, clear working approach, and sense of mutual accountability (Katzenbach and Smith 1993). So, the contribution of this paper will be to give an answer whether the factors affecting team performance are also determinants of organizational performance. For example, there are significant researches to show that the presence of complementary skills and knowledge within a team helps boldly to increase team performance.

Do team members and team leaders in health care sectors think that having complementary skills and knowledge within a team helps for organizational effectiveness? This paper will focus on to investigate the perceived perception of team members and team leaders on the potential contribution of these team performance variables on the organizational performance. The study will be conducted at one of health sector pioneer organization in Ethiopia, Tikur Anbesa Specialized Hospital (TASH). The Tikur Anbesa Specialized Hospital has been founded in 1972 basically as a referral hospital and teaching hospital to train medical doctors. It was the only teaching hospital to train medical doctors and was the largest referral hospital in the country with more than 700 beds. It became a university teaching hospital in 1998 by the Federal Ministry of Health. Since then, TASH is the main teaching hospital in the country for both preclinical and clinical studies of many disciplines. There are lots of services given to the referral patients from every corner of the country only found in TASH. Many specialized services and recent medical technological equipments and devices are found in TASH which made it still the referral center nationally. When many other teaching hospitals are opened to train medical doctors, the pioneer medical school has focused training on specialized programs. Today, TASH is again the largest specialization program teaching hospital in the country. Because of this fact, many teaching hospitals in the country, both governmental and nongovernmental are affiliated with TASH for training and capacity building. These specialization program attendants also render services to referral patients in their respective study unit.



The TASH has 224 doctors, 379 nurses and 115 other health professionals dedicated to providing health care services. More than 950 permanent and contract administrative staffs are there in TASH.

Based on the literature review and the team performance model of Katzenbach and Smith 1993, five variables are extracted and developed as the scale to measure the impact of team performance on perceived non financial organizational performance. The study will include both team members and team leaders' perception of their team's contribution to the organizational performance. A questionnaire was prepared, having 3 parts including the demographics contents in part one and Part two and three having the variables to measure teamwork and organizational performance respectively. Multivariate regression analysis will be done to analyze the data by using SPSS software. So, discovering what the contribution of Teamwork for the organizational performance of the Tikur Anbesa Specialized Hospital will help the Ethiopian health care system what to do next with regard to teamwork.

All managers expect some sort of benefit when they plan to organize work in teams, but may not know its magnitude and its contribution measured scientifically. So, this study will give scientific information with regard to the impact of teamwork on their organizational performance which may be used for decision making along with their own team experiences and information. The results of this study can be used as additional information for TASH and other similar healthcare organizations as an input for decision making concerning the team and teamwork.

## **1.2 Statement of the Problem**

The impact that teams have on the performance of the organization is a critical subject as far as team contribution to organizational performance is concerned. For sure, teams are organized to carry out certain tasks which are better to be carried out by teams but not individuals. So, measuring team's performance will not be the same as measuring the performance of an individual. The same way, assessing the contribution of an individual employee as well as a team helps organizations to make sure that works are done in line with the larger organizational goals. Oseiboakye 2015 found out that teams have undeniably significant effect on the employee performance and the fate of the organization. The study revealed that team and teamwork is essentially supportive of organizations and enhancing performance of employees (Oseiboakye, 2015).

The question that team performance determinants also has an effect on the performance of the healthcare provider organizations will be the main reason for this study. There are a lot of variables to measure the

independent variable team performance; five variables are selected from Katzenberg and Smith 1993 team performance model. Knowing the perception of team members on the impact of these variables on non financial performance of organizations might help in improving on the focus of team and teamwork in a given organization.

Healthcare jobs are rarely done only individually, but done in teams or working groups. The healthcare industry is one of the industry one can easily trace teamwork. A patient is not treated by a physician but many parties such as nurses, laboratories, radiographers, pharmacists and many more involved even to adequately treat a single person. The job done at each level highly impacts the whole patient treatment outcome finally. Failing in one is seen failing in whole system (Health Council of Canada, 2005).

Developing a health care system that values teamwork and supports patient-centered care requires a clear understanding of the complex nature of teamwork; the effect of different organizational contexts; and the impact of different policies, legislation, and regulations. For effective teamwork to take place in Canada, a coordinated effort among key stakeholders across the healthcare system (such as healthcare providers, organizational leaders, decision makers) is required to integrate the components that need to occur at all levels of the health care system (Health Council of Canada. 2005). Using teams for proper treatment and surgical outcomes are becoming the focus of many nations. Many studies in the developed world are focusing on how to coordinate health care teams to better treat different diseases and perform better surgical procedures. The United States Institute of Medicine 2001 has stated that ongoing studies are focusing on the use of teams to improve chronic disease care. This shows the important aspect of teamwork in the performance of organizations, basically in healthcare sectors.

In the study conducted in Canada by assessing healthcare institutions from primary care providers to highest referral centers, it is found out that an effective teamwork has a lot to do with the health care system and its professionals. Effective teamwork between the health care professionals has contributed from minimizing medical errors to achieving greater patient outcome which both contributed for better performance of organizations (Dave Clements and et al 2007). Dave Clements et al 2007 argued that having a teamwork of healthcare professionals is a must when it comes to patient treatment as it cannot be done alone by one medical professional.

A health care system which gave attention and focus and supports an effective teamwork in its setup is found in improving the quality of the patient care, enhancing patient safety and effectiveness in managing health care professionals work load. The Canadian Health Council 2015 encourages healthcare institutions in developing an effective teamwork within its setup for lots of reasons mainly to come up with the finite patient treatment outcome and improve organizational performance. The council has found out that institutions having greater teams are associated with improved patient treatment outcome, reduced patient compliance and greater increase in organizational effectiveness (Health Council of Canada. 2005).

It might be difficult to escape from the presence of team and teamwork in almost every organization. So, discovering team's contribution to organizational effectiveness helps for these organizations in achieving their strategy by aligning the teams with organizational goals. Measuring organizational performance in mission based health care organizations might be challenging compared to business organizations because we don't usually find quantitative data such as profit or financial data as in the business organizations. So, the study prefers to measure the perception of team members on their contribution to the total non financial organizational performance. The researcher believes that knowing really the perception of the team members whether the teamwork, they are involved in , contributes to organizational performance helps a lot for a lot of purposes from knowing what works best for the teams on the ground to measuring teams contribution for organizational performance.

In univariate analyses done by Karen Mazzocco et al. 2009, patients had increased odds of complications or death when the behaviors (information sharing during intra operative phases, briefing during handoff phases, and information sharing during handoff phases) were exhibited less frequently. The teamwork of the surgical team was directly related to treatment and surgical outcomes. Failure in teamwork between healthcare professionals was associated with complications and also death (Karen Mazzocco et al. 2009). This implies that the less teamwork communications are associated with patients' death because of poor teamwork.

There are also studies showing that there is a loose collaboration within the healthcare professions, though professionals understand that the need for health care teamwork for better work outcome (Oandasan et al. 2006).

From the above mentioned literatures and the interest of the researcher, there is a need to study the impact of teamwork on the performance of the organization in health sectors. Many studies done on the effect of teams on organizational performance are carried out on business and government organizations. The researcher did not find any research done in Ethiopia on the subject matter. As there are also limited studies on measuring governmental service based health care organization's performance against teamwork, this study contributes some sort of adding up to the already existing few studies on the area in Ethiopia.

### **1.3 Research Questions**

Based on the literature review and Katzenbach and Smith 1993 model of team performance, the following research question was adopted for this study.

1. Does teamwork have an impact on organizational performance in TASH?
2. To what extent teamwork has improved performance in organizations through effective communication and information flow?
3. To what extent has teamwork improved performance in the organization through complementary skills and knowledge?
4. To what extent has teamwork improved performance in the organization through clear purpose and specific goals?
5. To what extent has teamwork improved performance the organization through creating clear working approach?
6. To what extent has teamwork improved performance in the organization through creating a strong sense of mutuality and accountability?

### **1.4 Research objectives**

#### **1.4.1. General Objective**

-  The general objective of this study is to investigate the perception of team members and team leaders on the impact of teamwork on organizational performance in health care institutions by taking TASH as a case organization.

#### **1.4.2 Specific Objectives**

-  To discover the extent of impact of teamwork on the performance of the organization through effective team communication and information flow.
-  To investigate the extent of impact of teamwork on the performance of the organization through complementary skills and knowledge.
-  To study the extent of impact of teamwork on the performance of the organization through meaningful purpose and specific goals.
-  To investigate the extent of impact of teamwork on the performance of the organization through clear working approach.
-  To study the extent of impact of teamwork on the performance of the organization through a sense of mutuality and accountability.

### **1.5 Significance of the study**

This study will be useful for Ethiopian health institutions to help adding scientific knowledge on the perception of team members on the impact of team performance determinants of organizational performance. As clearly discussed in the introduction, team performance depends on several factors though no single or list of factors got accepted by all researchers. So, this paper will be useful for aid organizations in Ethiopia and other countries to help on what organizations should focus as far as team's contribution for organizational effectiveness is concerned.

The results of this study might also be used by aid organizations to take into consideration the important and significant factors to consider in team building. Since teams are formed to carry out certain tasks, knowing scientifically what factors work better helps managers and executives to consider what works best for to be formed teams or even the existing teams. This study also tastes the model of Katzenberg and Smith so that it will give us a chance to test the model in the modern day teams.

Additionally, the results of the study can be taken as a model test of Katzenbach and Smith 1993 model in the Ethiopian health care team. The results of the study are believed to show which factors are the most detrimental in influencing the performance of healthcare organizations. This helps these organizations to focus on their team to get the maximum output of the team and in improving the organizational performance.

### **1.6 Scope of the study**

The study was limited only on studying the perception of team members and team leaders to study the effect of teamwork on organizational performance. The study was conducted only in one but major healthcare institution. Only quantitative analysis was used to draw conclusions and hard copy questionnaire was the data instrument used to collect primary data.

### **1.7 limitations of the study**

There was no intermediate variable used to measure the impact of teamwork on the organizational performance. Only perception of teamwork and team leaders of TASH healthcare staffs using questionnaire were used to gather information and draw conclusion. No secondary data and interview were used. Among the four known perspectives of BSC, the financial perspective was not included as a measurement of performance of the organization.

### **1.8 Organization of the study**

Five Teamwork performance indicators were selected based on the team performance model of Katzenberg and Smith 1993. Three of the four balanced score card perspective except the financial perspective, namely customer perspective, internal process perspective and learning and growth perspective were used to measure performance of the organization. Questionnaire was prepared based on the variables selected. The questionnaire was prepared in three parts including the demographic part in part one and questions to address the teamwork performance in part two and the third part questions addressing the organizational performance indicators. Case study research design was implemented. Stratified sampling method was used to select respondents. The validity and reliability of data were checked using Cronbach's alpha. Data was then collected using hard copy questionnaire as data collection instrument. The gathered data was analyzed using multiple regression analysis. Findings and results were used to draw conclusions. Recommendations were given based on the conclusions and results of the study. Discussions, Conclusions and recommendations were made objectively based on the results and findings of the study.

## **1.9 Definitions of key terms**

**Team:** a team is a small number of people with complementary skills who are committed to a common purpose, set of performance goals, and approach for which they hold themselves mutually accountable

**Teamwork:** teamwork is a grouping of professionals whose members work intensely on a specific, common goal using their positive synergy, individual mutual accountability and complementary skills

**Team Communication:** The flow of information within a team

**Adequate level of skills:** The variety and distribution of skills and knowledge within a team required to accomplish tasks.

**Working Approach:** The methods which can be used to accomplish certain tasks

**Meaningful purpose:** The why of a team, the reason for the establishment of a team

**Specific Goals:** the setted and agreed final destinations of accomplishing any task.

**Mutual Accountability:** the sense of team belongingness and level of responsibility of tameness rather than being individual centered.

**Organizational performance:** organizational performance is the organization's ability to attain its goals by using resources in an efficient and effective manner.

**Customer perspective:** performance objectives that are linked with customers and markets.

**Internal Process Perspective:** internal operational goals and objectives or what does the organization need to have in place in order to drive performance.

**Learning and Growth Perspective:** encompasses parameters significant for the growth and future innovation of organizations including

# **CHAPTER TWO**

## **LITERATURE REVIEW**

### **2.1 Introduction**

Teamwork is one of the job design implemented by organizations and it is expected that it will have a significant contribution to the performance of the organization in achieving the strategic goals. Healthcare jobs are one of the many jobs which are mostly performed by the teams. The impact of teamwork on the performance of organizations is one of the study areas in social sciences. Various teamwork parameters and performance parameters are used in studying the relationship between teamwork and performance. Organizational performance and its measurement, especially in healthcare sectors are also discussed as the backbones of the theoretical model of the study in studying the impact teamwork have upon the performance of organizations; important concepts and theoretical review of the key words in this study are discussed below.

### **2.2 Theoretical Review**

#### **2.2.1 Team**

From the works of an office job to the higher complicated scientific researches, from tennis sport to football plays, teams are almost everywhere. Much of the world's innovations and scientific researches are done using a team. In the history of organizations, assigning jobs and works to working groups and teams has been common and contributed to today's stronger belief and focus for teams and working groups. When there are tasks and works to be better performed not by one individual, giving the task for teams has led organizations to better performance and reduce the resources used for accomplishing the task. Especially when the work is in need of different experts in the field and needs each expert's contribution to be performed, teams are not only a choice, but a must.

When a certain job is in need of a mix of skills, judgments and experiences, the idea of forming a team to perform the multiskill task outweighs than accomplishing the task by an individual. This is all because teams are always in a garter mix of varying skills and knowledge that may not be found in one individual. Teams are discrete units of performance, not a positive set of values. And they are a unit of performance that differs from the individual or the entire organization (Katzenbach and Smith 1993).

Since the term team has been introduced to the scientific realm, various attempts have been made to define what team and teamwork is (Hackman 1987). Different scholars have given different definitions of the



team and its classification (Cohen and Bailey 1997). Though as many definitions of them are introduced by various scholars, there is no single all accepted definition until this paper is done (Katzenbach and Smith 1993). Groups, working units and teams are some of the terms used to describe such forms of job design though there are differences between these terms used to describe a certain job design involving more than one person to accomplish a certain task (Benders and Van Hootegem 1999).

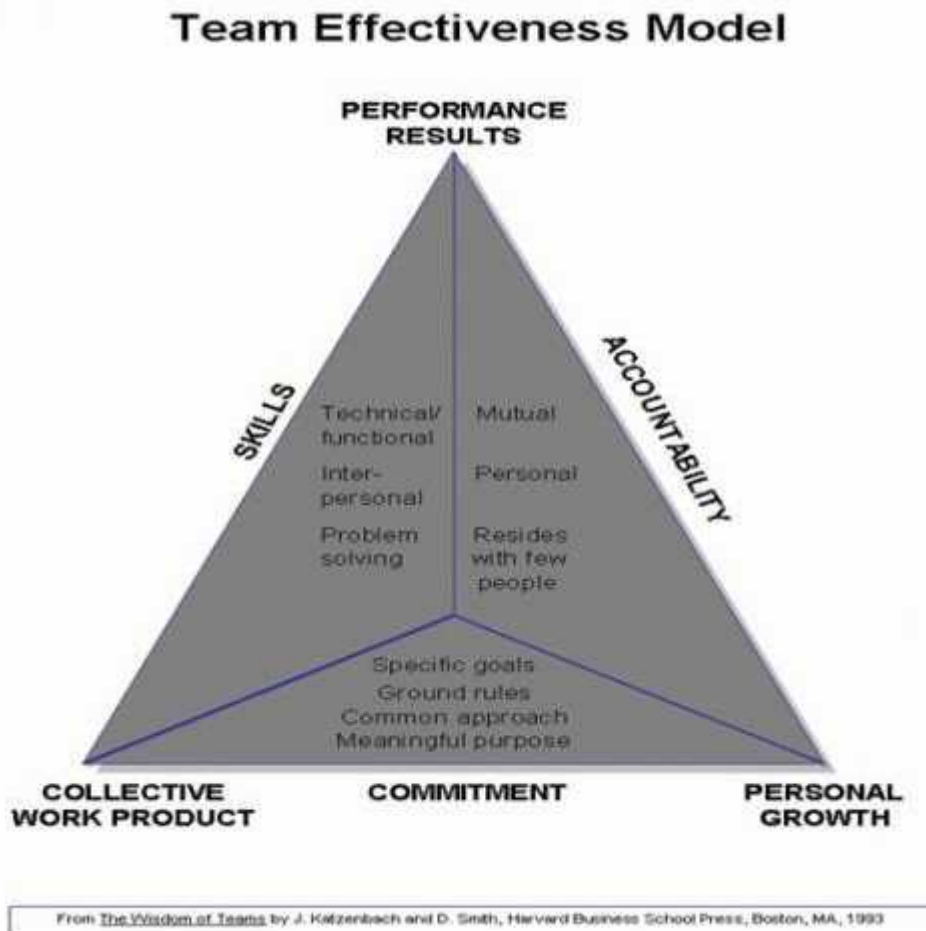
Being successful in teamwork is quite different from being successful individually though there might be a lot to share from one to another. The sports world is full of stories of underdog teams that have won championships against a group of players who were better individually but did not make up a good team (Daft 2008).

Katzenbach and Smith 1993 defined them as a small number of people with complementary skills who are committed to a common purpose, set of performance goals, and approach for which they hold themselves mutually accountable. This definition of team signifies the importance of what makes a team a team; a small size in number, complementary skills, purpose and goals, working approach and sense of mutuality. While the business dictionary defined them as a group of people with a full set of complementary skills required to complete a task, job, or project.

After thoroughly studied various teams across several companies and various work challenges, authors Jon Katzenbach and Douglas Smith introduced their book entitled *The Wisdom of Teams* in 1993. They introduced a model of an efficient team in a triangular diagram having three important team deliverables expected from any team. These three deliverables are named as collective work products, performance results, and personal growth. Based on their model, six team basics are explained in three categories.

- 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 for one's own work, and ideally these teams must be made up of only a small number of people.

**Figure 2.1: Katzenbach and Smith Team performance model 1993**



**Source: Katzenbach, J. R. And Smith, D.K. (1993), The Wisdom of Teams: Creating the High-performance Organizations, Harvard Business School, and Boston**

Based on the definition of team and their team performance model, the following teamwork determinants are selected and discussed below.

**a. Communication**

Teams need to convene and communicate easily and frequently. They should have open and interactive discussions. In different researches, teams with smaller size are communicating better and the flow of information is found to be better. Large numbers of people have trouble interacting constructively as a group, much less doing real work together (Katzenbach and Smith 1993). Communication in teamwork is an important tool for the team to have life and accomplish tasks. The poor communication within a team leads to failure to achieve the team goal (Schaefer et al. 1994). The American Association of Critical Care

Nurses (2005) further supports this, reporting that 60% of errors in medication are caused by mistakes in interpersonal communication within the healthcare team.

**b. Adequate levels of complementary skills**

One purpose of having a team is to accomplish tasks in a team by contributing from the different knowledge and skills mix within a team. Teams are expected to develop the right mix of skills, that is, each of the complementary skills necessary to do the team's job. The members of the team, individually and collectively, should be willing to develop the required skills in themselves and others.

Though there is no standard set of skills, team needed to have, the technical or functional expertise, Problem-solving and decision-making skills and Interpersonal skills are listed by many researchers and books (Katzenbach and Smith 1993).

**c. Truly meaningful purpose and Specific Goals**

A team should understand and be able to articulate its purpose in the same way. It is important to make the purpose meaningful and memorable, and reinforce its importance to the organization or customer. Teams develop direction, momentum, and commitment by working to shape a meaningful purpose. The best teams invest a tremendous amount of time and effort exploring, shaping, and agreeing on a purpose that belongs to them both collectively and individually (Katzenbach and Smith 1993).

In contrast, failed teams rarely develop a common purpose (Katzenbach and Smith 1993). Effective teams are always known by their ability to transfer their purpose into measurable and specific goals. Team members should articulate the goals in the same way; they should understand relative priorities and, ultimately, agree that they are the right goals. Goals should clear, simple and measurable (SMART) and generate a clear set of teamwork-products.

Having a specific goal in a team helps the team focusing on getting the required results. Specific team performance goals help to define a set of work-products that are different both from an organizational wide mission and from individual job objectives (Katzenbach and Smith 1993).

#### **d. Clear working approach**

After having purpose and shaping goals, how the team is going to approach the task to be performed depends on the working approach. Working approach deals with how to integrate the different mix of knowledge and skills within a team to accomplish the work. Shaping an all agreed and inclusive work approach is important in taking the team a long distance to achieve team goals.

Every member of a successful team does equivalent amounts of real work; all members, including the team leader, contribute in concrete ways to the team's work product as this is a very important element of the emotional logic that drives team (Katzenbach and Smith 1993).

#### **e. Sense of mutual accountability**

The team is expected to feel a sense of individual and collective accountability for the work purpose and the goals, approach and work-products that form they're part of it. Individuals within a team should be clear on individual and joint responsibilities so that progress can be measured against specific goals. There should be a sense that 'only the team can fail' or success. Mutual accountability cannot be coerced any more than people can be made to trust one another, but when a team shares a common purpose, goals, and approach, mutual accountability grows as a natural counterpart (Katzenbach and Smith 1993). Accountability arises from and reinforces the time, energy, and action invested in figuring out what the team is trying to accomplish and how best to get it done (Katzenbach and Smith 1993).

### **2.2.2 Teamwork**

Work can be accomplished through various ways, individually, in groups or in teams. When a manager or job designer thinks that if a certain job is better to be performed by more than one person and needs an involvement of various knowledge and skills, it is true that working groups or teams are the option to choose. It is common to see the concept of teamwork in many different theoretical models. In the study by Rousseau et al. 2006 (Rousseau 2006) reported that 29 frameworks related to teamwork have been published. As much overlap can be seen in these different models, there are also significant differences with each other. In General terms, the teamwork models consisted of different observable and measurable behaviors. There are various teamwork models, most of the models focus on behaviors which have an impact on teamwork performance (Rousseau et al 2006). Marks et al. 2001 explained that teamwork and performance cannot be seen separately, one cannot separate teamwork from performance. A majority of executives and managers advocate teamwork in their organizations' members' behaviors, within a team,

can be seen in terms of what a team is doing (task work) and what the whole team is doing to achieve its goals (teamwork processes) (Rousseau V 2006). Task work is what teams are doing, whereas teamwork describes how they are doing it with each other while task work involves the execution of core technical competencies within a given domain, teamwork refers to the range of interactive and interdependent behavioral processes among team members that convert team inputs into outputs (Marks et al 2001). Example of teamwork can be given in a lot of organizations like in the medical treatment of a patient; the communication between the nurse, the doctor, the laboratory technician and the pharmacy department to serve the patient is a good example of teamwork. The way the different scientists communicate and work together to innovate one pharmaceutical medicine and avail to the market will be ideal without the significant teamwork they do.

Research from the bulk of studies indicates that teamwork is positively associated with important team effectiveness variables, including team performance, group cohesion, collective efficacy, and member satisfaction (Lepine JA et al 2008). Xyrichis 2008 suggested having a common definition of team and teamwork before praising or insulting team and teamwork. A study by Xyrichis 2008 on the concept analysis of teamwork suggested that there is a big lack of proper teamwork definition and this leads to unbalanced teamwork perceptions. Though there is no single all agreed definition of teamwork, the researcher of this study believes that at least basic concepts what makes a teamwork should be included so that one can get an effective result of teamwork.

Not every working group is a team, committees, councils, and task forces are not necessarily teams. Groups do not become teams simply because that is what someone calls them (Katzenbach and Smith 1993). It helps to distinguish between teams and other forms of working groups. The focus on the working group is individual goals and accountabilities while team goals and team accountabilities are the concern in teams. Working-group members don't take responsibility for results other than their own. Nor do they try to develop incremental performance contributions requiring the combined work of two or more members (Katzenbach and Smith 1993). The basic difference lying between teams and working groups is that teams require both individual and mutual accountability. Simply stated, a team is more than the sum of its parts (Katzenbach and Smith 1993).

**Figure 2.2: The Difference between Teams and Groups**

<b>Not All Groups Are Teams: How to Tell the Difference</b>	
<b>Working Group</b>	<b>Team</b>
<input type="checkbox"/> Strong, clearly focused leader	<input type="checkbox"/> Shared leadership roles
<input type="checkbox"/> Individual accountability	<input type="checkbox"/> Individual and mutual accountability
<input type="checkbox"/> The group's purpose is the same as the broader organizational mission	<input type="checkbox"/> Specific team purpose that the team itself delivers
<input type="checkbox"/> Individual work-products	<input type="checkbox"/> Collective work-products
<input type="checkbox"/> Runs efficient meetings	<input type="checkbox"/> Encourages open-ended discussion and active problem-solving meetings
<input type="checkbox"/> Measures its effectiveness indirectly by its influence on others (e.g., financial performance of the business)	<input type="checkbox"/> Measures performance directly by assessing collective work-products
<input type="checkbox"/> Discusses, decides, and delegates	<input type="checkbox"/> Discusses, decides, and does real work together

**Source: Katzenbach, J. R. And Smith, D.K. (1993), The Wisdom of Teams: Creating the High-performance Organization, Harvard Business School, and Boston.**

As effective teamwork leads to greater team performance, the opposite, that is the poor teamwork, performance, leads to significant work failure. 70-80% of health care errors are caused by human factors associated with poor team communication and understanding (Schaefer et al. 1994).

### **2.2.3 Performance**

One of the widely used concepts in organizations of any type is performed. Performance is a widely used concept in many areas. Performance is a measurement of how an organization process is successful in achieving its purpose. Casio 2006 explained performance as a degree of achievement of the mission at the work place that builds up an employee job (Cascio, 2006).

Different researchers have different thoughts about performance. Stunning 1996 showed that most researchers used the term Performance to express the range of measurements of organizational efficiency and input and output efficiency. The researcher evidenced that performance should be seen differently that productivity because they are different. Ricardo (2001) noted the difference between productivity and performance. Productivity was explained as a ratio of the amount of volume of work done fully in a given time. Performance is a larger indicator including productivity, consistency and other factors.

Denison 2008 defined performance as the successful achievement of organizational goals, both financial and non financial, which makes the organization sustainable in in the short and long times. The authors of balanced scorecard, Norton and Kapland 2001, noted that organizations are more giving attention on the management of non financial or intangible assets (customer satisfaction, service quality). So, there is a need for the proper performance measurement system to measure and evaluate the performance of employees as well as the organizations. So, there is a need for the proper performance measurement system to measure and evaluate the performance of employees as well as departments, teams and organizations either financial or non-financial.

Mullein (2003) defined organizational performance as how effective the organization is managed and the output organizations deliver for its stakeholders (Moullin 2003). Performance is also the measurement of the effectiveness and efficiency of both the organization and the workers (Neely et al.2000) where effectiveness refers to the extent to which stakeholder requirements are met, while efficiency is a measure of how economical the organization's resources are utilized when providing a given level of stakeholder and customer satisfaction. Hence, performance can be defined as the use of resources both efficiently and effectively in the achievement of its expected objectives.

#### **2.2.4 Teamwork and Organizational Performance**

Every team is organized to accomplish its assigned work so that it will contribute to the organizational performance through teamwork. Now the question lies in the magnitude of noticeable impact of teamwork on the performance of the organization via teamwork components. It is clear in mind that teamwork will contribute to organizational performance. There was no universally accepted definition of organizational performance as well as an all agreed conceptual clarity on organizational performance (Heffernan and Flood 2000). As there was a problem in definition, there was also a problem of agreement on its measurement (Heffernan and Flood 2000).

According to Daft 2008, organizational performance is the organization's ability to attain its goals by using resources in an efficient and effective manner (Daft 2008). Ricardo (2001) also defined organizational performance as the ability of the organization to achieve its goals and objectives. Mullein (2003) defines an organization's performance as, how well the organization is managed and the value the organization delivers to customers and other stakeholders. It is also the measurement of the effectiveness and efficiency of both the organization and the workers (Neely et al.2000,) where effectiveness refers to

the extent to which stakeholder requirements are met, while efficiency is a measure of how economical the organization's resources are utilized when providing a given level of stakeholder and customer satisfaction. Based on this, Performance can be defined as the use of organizational resources both efficiently and effectively in delivering organizational goals and objectives. After studying and exploring the use of teams, Katzenbach and Smith explained that, the potential impact of single teams, as well as the collective impact of many teams, on the performance of large organizations is underexploited despite the rapidly growing recognition of the need for what teams have to offer.

### **2.2.5 Performance Measurement**

As much research and studies done on performance measurement, there is still no consensus on how to measure performance and its definition is still the area of debate for the field experts. Until this paper is studied, there is no single or collectively agreed upon performance measurement by the scholars of the field. Neely et al 2000 defined performance measurement as a set of systems of metrics used to quantify both the efficiency and effectiveness of actions (Neely et al., 2000). This definition focused on the measurement metrics in defining the effectiveness and efficiency quantitatively. On the other hand, Moullin (2003) defined performance measurement as, the evaluation of how well organizations are managed and the value they deliver for customers and stakeholders. Stakeholder and the way the organization is managed are considered in measuring performance according to this definition.

A more specific and detailed definition of performance measurement was given by Amaratunga and Baldry (2002); defining Organizational performance measuring to assess how well it is progressing towards its predetermined objectives, helps to identify areas of strengths and weaknesses, and decides on future initiatives, with the goal of improving organizational performance (Amaratunga and Baldry 2002). Both the role and process of performance measurement are addressed clearly from different aspects in measuring the performance of organization.

### **2.2.6 Organizational Performance Measurement**

Different researches have used different variables to measure organizational performance. The use of variables depends on many factors as the study topic, case organization and purpose of the researcher. Organizational performance can be measured using financial and/or non financial variables. Financial



variables include profitability, gross profit, return on asset, return on investment, return on equity, return on sale , revenue growth, market share, stock price, sales growth, export growth, liquidity and operational efficiency (Parnell & Wright, 1993).

Non financial parameters include customer satisfaction, motivation, employee satisfaction, internal process perspective, innovational approached, development approach and many more (Parnell & Wright, 1993). There was also inconsistent measurement of organizational performance although most researchers (Kotter & Heskett, 1992) measured organizational performance by using quantitative data like return on investments, return on sales and so forth.

The definition of performance has included both efficiency-related measures, which relate to the input/output relationship, and effectiveness related measures, which deal with issues like business growth and employee satisfaction. Additionally, performance has also been conceptualized using financial and nonfinancial measures from both objective and perceptual sources. Objective measures include secondary source financial measures such as return on assets, return on investment, and profit growth. These measures are non-biased and are particularly useful for single-industry studies because of the uniformity in measurement across all organizations in the sample (Venkatraman & Ramunujam, 1986).

One of the most comprehensive frameworks for Organizational Performance Assessment (OPA) is the Institutional and Organizational Assessment Model (IOA Model) elaborated by Universalis, a management consulting firm, and the International Development Resource Center (IDRC). This model views the performance of an organization as a multidimensional idea, that is, as the balance between the effectiveness, relevance, efficiency, and financial viability of the organization (see schematic diagram below). The framework also posits that organizational performance should be examined in relation to the organization's motivation, capacity and external environment. Indeed, a review of the literature conducted as a preliminary step for developing the framework showed that organizations change: in response to factors in their external environment, because of changes in their internal resources (e.g., financial, technological, human), and as a result of fundamental shifts in values within the organization, which in turn affect the organizational climate, culture and ways of operating.

**Figure 2.3: Organizational Performance Assessment Model**



**Source: Universalia Institutional and Organizational Assessment Model (IOA Model)**

There are numerous methods to measure organizational performance. The list below lists approaches favored by a number of scholars. These various types of organizational measurements tools share in common the need for organizational goals and regularly monitoring of progress towards these goals. The intention for each is that the process of collection and reporting becomes integrated into the overall management system of the organization.

### **2.2.7 Organizational Performance Measurement Methods**

As discussed above, there are a lot of organizational measurement methods, but not a single measurement method. This sub topic discussed the organizational performance methods widely used by scholars.

- a. Balanced Scorecard: focuses on four perspectives, including customer perspective, internal-business processes, learning and growth and financials, to monitor progress towards the organization's strategic goals.
- b. Benchmarking: Uses standard measurements in a service or industry for comparison with other organizations in order to gain perspective on organizational performance. Benchmarking is often perceived as a quality initiative
- c. Business Process Reengineering: Aims to increase performance by radically redesigning the organization's structures and processes, including by starting over from the ground up
- d. ISO9000: Is an internationally recognized standard of quality, and includes guidelines to accomplish the ISO9000 standard.
- e. Knowledge Management: Focuses on collection and management of critical knowledge in an organization to increase its capacity for achieving results.
- f. Management by Objectives: Aims to align goals and subordinate objectives throughout the organization. This includes continually ongoing tracking and feedback in process to reach objectives. Management by objective is often perceived as a form of planning.
- g. Total Quality Management: Set of management practices imposed throughout the organization to ensure that it consistently meets or exceeds customer requirements. Total Quality Management made its main focus on process measurement and control as a method of achieving improvement continuously.

### **2.2.8 Balanced Score Card**

The researcher has selected balanced score card as a method of organizational performance methods. So, further conceptual discussions are as follows. The balanced score card was developed by Robert Kaplan and David Norton in 1992 and still remained one of the widely used management and measuring toll in almost various kinds of companies from the small to multinational corporations. Balanced score card helped organizations from clarifying their basis of strategy to prioritizing their objectives and goals. The Balanced Scorecard is a set of performance targets and results relating to four dimensions of performance; financial, customer, internal process and innovation (Norton and Kapland 1992). The BSC makes organizations responsibility in identifying their different stakeholders which are directly or indirectly involved with organizational strategies.

**Figure 2.4: Balanced Score Card**



**Source: Norton and Kapland 1992 BSC model**

What the balanced score card narrates for organizations using it is to reflect the organizational performance in satisfying the needs of its stakeholders. Though known that different stakeholders have different needs, the BSC measures how organizations are effective in meeting the needs of their stakeholders. Employees, as a shareholder, depend on the organization for their job while shareholders are concerned about their profit via the investment made. Organizations are expected to balance these types of compelling needs. Hence, the concept of a balanced scorecard is to measure how well the organization is doing in view of competing stakeholder wants (Norton and Kapland (1992).

#### I. The Customer perspective

Customers are one of the main stakeholders of any organizations and are vital. The performance objectives that are linked with customers and markets are listed here in the customer perspectives. What exactly the organization is going to deliver for each financial gain to customers and market will be

answered by customer perspectives. The most significant needed to be included in this perspectives include (Norton and Kapland 1992),

- Customer service and satisfaction
- Customer retention and new customer acquisition
- Customer profitability
- Market share (such as, growing market share in a certain segment or country)
- Brand awareness

## II. The Internal Process perspective

The processes organizations need to put in place to deliver their customer and finance-related objectives falls under the internal process perspective. Here organizations would set out any internal operational goals and objectives – or, in other words, what does the business need to have in place and what does the business need to do well in order to drive performance (Norton and Kaplan 1992). Examples of internal process objectives might include:

- Process improvements
- Quality optimization
- Capacity utilization

## III. The Learning and Growth perspective

The intangible drivers of organizational performance are in the learning and innovation perspective. This perspective is a wide perspective and encompasses parameters significant for the growth and future innovation of organizations including

- Human capital – skills, talent and knowledge (for example, skills assessments, performance management scores, training effectiveness)
- Information capital – databases, information systems, networks and technology infrastructure (such as, safety systems, data protection systems, infrastructure investments)
- Organizational capital – culture, leadership, employee alignment, teamwork and knowledge management (for example, staff engagement, employee net promoter score, corporate culture audits) (Norton and Kaplan 1992).

#### IV. The Financial perspective

Profit is the most important for business organizations. So, maximizing profit is in need for organizations existence as breathing is essential for human existence. The most important perspective for such organizations is financial perspective. Revenue and profit are obvious objectives that most organizations list in this perspective (Norton and Kaplan 1992).

In this study, the financial perspective is not taken as a variable of measuring organizational performance due to the fact that the case organization is not a business organization and the researcher intends to study only the non financial perspective of the organizational performance.

#### **2.2.9 Balanced Score card for Governmental organizations**

In his balanced score card review ; Bernard Marr, a renowned international balanced scorecard expert, suggested that it is common to see researchers tweaking the names and orders of the perspectives so as to measure performance of organizations. He explained that a balanced score card is a flexible tool, not a straight jacket. For example, if for not-for-profit organizations, there might not be a need of a separate financial perspective; even if financial perspective is included, it may not appear on the top as the organization is primarily not for profit. Governmental organizations are mission driver, not for profit organizations. The Balanced score card can be used also as a mission driven scorecard systems dictating the different nature and value system of these types of organizations. The perspective naming needs even to show the difference in the organizational value system. Different naming of perspectives or orders of perspectives can be used depending up on the value system of organizations. For example, financial stewardship or budget effectiveness can be used as a substitute for financial perspectives for governmental mission driven organizations.

The researcher used only the three balanced scorecard perspectives except financial perspective. Secondary data was used to reflect on the budget effectiveness of TASH.

#### **2.2.10 Benefits of Performance Measurement**

When organizations are established, it is to perform something whether it is governmental, nongovernmental or business organization. So, knowing whether this performance is accomplished or not is the only way to know how organizations are doing and to ensure sustainability. A business organization may not stay if not perform well in getting profits; a nonprofit organization may not stay on the line

without accomplishing its tasks. Performance measurement has a lot of benefits for organizations and these benefits are classified in to four aspects (Neely 1998).

1. Checking position; it is the establishment of current status and monitoring of progress over time and against benchmarks.
2. Communicating position; this deal with communicating with the shareholders, customers, or employees by releasing annual reports or calling for general meetings, etc.
3. Confirm priorities; performance data provide insights into what is important to a business, thus by exposing shortfalls that allow organizations to identify priorities.
4. Compel progress; the measures can help the organization to focus on specific issues and encourage people to search for ways to improve performance. This measure communicates priorities and can form the basis for reward (Neely, 1998).

## **2.3 Review of Empirical Studies**

Previous empirical researches on teamwork, performance and organizational performance are discussed to support the conceptual framework of the study.

### **2.3.1 Empirical review on Teamwork**

Studies have shown that modern day organizations are becoming highly related with teamwork to accomplish their organizational goals. Various models and theories are developed on how to organize teams, how to develop teams, how to monitor and evaluate teams and still it is one of the areas where ongoing studies are carried out.

Changes in work organization (the introduction of teams) can have a direct impact on employee behavior (less absenteeism) and, subsequently, on operational performance (higher productivity), which, in turn, can contribute to higher levels of financial performance (higher profits), (Dyer and Reeves 1995; Guest *et al.* 2003). Teamwork has emerged in recent years as one of the most important ways in which work is being reorganized (Osterman 1994; Waterson *et al.* 1997).

Many reasons can be mentioned why organizations prefer to use teams over other types of job designs. One of the reasons why present day organizations prefer to use teams is the increasing competition and technological changes (Chen & Klimoski, 2003). The Dynamic organizational competitions are forcing organizations to be more creative and create a room for innovation which is highly done by forming teams (Chen & Klimoski, 2003). In their study, Fung and Ali 2011 discovered that team performance is always more effective than personal performance. Because of this fact, it is becoming visible to see lots of multinational corporations are adopting the teamwork job design in almost many of their departments specially when intermix of skills and knowledge are in demand by the job to be done.

Ichniowski *et al.* (1996, 300–301) has found out that employees feel stimulated by working together towards a common goal ( Ichniowski *et al.* 1996, 300–301). This implies that employees may perform better when they work together in a team having a common goal. But, this does not mean necessary it is always true that employees perform better only in a team.

As per what Cohen and Bailey 1997 have found out, those organizations (both business and nonprofit organizations) adopted teamwork structures have produced significant results in achieving organizational goals. This indicates that early adopting team structures for tasks which should be done by teams are associated positively with organizational performance.

### **2.3.2 Empirical review on Teamwork determinants**

According to Katzenbach and Smith (1993), there are four reasons that teams work: 1) individuals coming together bring complimentary skills and experience that exceed any individual; 2) teams support real-time problem solving and are more flexible and responsive to changing demands with greater speed, accuracy, and awareness than individuals; 3) teams provide a unique social dimension that enhances the economic and administrative aspects of work; and 4) teams have more fun (p. 18). Shulman (1996) and Katzenbach and Smith (1993) hypothesized that individuals, as compared to teams, are no longer able to deal with the complexities and pressures that are best solved using team structures that require multiple skills, judgments, and experiences.

### **2.3.3 Empirical review on organizational performance**

The concept of organizational performance and its measurement is always an issue of debate for researchers and organizations such as corporate, governmental or nonprofit organizations. All is because



there is no single way of defining and measuring organizations and organizations are different to each other. Scientists have discovered various models and theories to define and measure organizational performance since the concept has emerged. But most of the organizational performance experts agree that organizations should be measured based on their organizational goals, effectiveness and efficiency.

According to Doyle (1994), there was no single measure or best measure of organizational performance. Organization adopts different objectives and measurements for organizational performance. Based on a review of the empirical literature between 1987 and 1997, Zou and Stan (1998) proposed seven categories of financial, non-financial, and composite scales to measure export performance. The financial measures are sales measures, profit measures and growth measures, whereas the non-financial measures are perceived success, satisfaction and goal achievement. Financial measures are more objective compared to the non-financial measures which are more subjective.

#### **2.3.4 Empirical review on teamwork effect on organizational performance**

At this stage it is clear that teamwork is important in organizational structures. Multiple researches are done to prove the effect of teamwork on organizational performance and effectiveness. These studies have used different methods, teamwork indicators and organizational performance indicators. Majority of studies agree on the fact that teamwork is positively associated with organizational performance even using various indicators to measure the relationship between teamwork and organizational performance.

Strategic HRM theory, for example, suggests that an appropriately designed HR system, which typically includes teamwork, will have a positive effect on an employee's job satisfaction, commitment and motivation, leading to behavioral changes that result in improved organizational performance (Becker *et al.* 1997; Dyer and Reeves 1995). Similarly, self-leadership theory focuses on participatory decision-making, individual discretion and teamwork as important motivating factors, and suggests these will lead to more committed employees who strive for greater efficiency and effectiveness (Manz and Sims 1980; Sims and Manz 1996). Work design theory, however, tends to emphasize intra-group processes such as job design, task variety and interdependence (Hackman and Oldham 1980; Wall and Martin 1987), while sociotechnical theory highlights changes in the structure of an organization and its processes as the main mechanism by which performance is enhanced (Mueller *et al.* 2000; Van Hootegem 2000).

The quantitative review of survey based research, done by focusing on empirical studies in which both teamwork and performance are directly measured, shows that teamworking has a positive impact on organizational performance. The study examined all four dimensions of teamwork effectiveness: attitudinal, behavioral, operational and financial and shows that teamwork has significant effect on organizational performance (Anne Delarue, Geert Van Hootegem, et al 2008).

A positive relationship between teamwork and operational performance is found in a number of studies. In their study of a textile manufacturer, Hamilton et al. (2003) found that team-sewing increased productivity by approximately 18%. According to Cohen et al. (1996), a form of work organization incorporating teams and strong employee involvement had a significant impact on both quality and efficiency. Zwick (2004) found out that teamwork formed a substantial part, significantly increased economic value added in German firms. Batt (2001) proved that teamwork as a positive predictor of financial performance.

On the other hand, there are researches which found out that there is no significant association between teamwork and financial outcomes, taking financial outcomes as a measure of organizational performance (Glassop 2002, McNabb and Whitfield 1997, Cappelli and Neumark 2001).

### **2.3.5 Conceptual Framework of the Study**

Doing all the literature reviews, the conceptual framework of this study is designed as follows. Based on the team performance model of Katzenberg and Smith, the following prepositions are made and will be studied in this cross sectional study.

(a) Teamwork will be positively linked to organizational performance. The very general assumption that will guide this study is that teamwork will have positive effects on organizational performance.

(b) Any positive link between teamworking and performance can be explained by the impact of five team basics on teamwork and then to organizational performance.

Thus, the following hypothesis is generated

Hypothesis 1: Communication within team has a positive impact on organizational performance.

Hypothesis 2: Teams with complementary skills are positively associated with organizational performance.

Hypothesis 3: The presence of clear and specific team purpose and goals within a team is positively associated with organizational performance.

Hypothesis 4: Teams having clear working approach are positively associated with organizational performance.

Hypothesis 5: The presence of mutual accountability within a team is positively associated with organizational performance.

**Figure 5: Conceptual model of the study**



## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 Introduction**

The research approach, research design, study variables, target population, sampling technique, sample size, data collection instrument, method of data collection and data analysis and presentation tools are discussed below as what has been used to perform this research.

#### **3.2 Research Design and Approach**

The general map of how a research is going to be performed can easily be found in its research design. Research design illustrates almost the basic activities that are essential to carry out a research. The research design provides an operational frame within which facts will be placed, processed through analyzing procedures and valuable research output is produced (Cooper 2006).

As the purpose of this study is to study the causal effect of teamwork on organizational performance, the purpose of the research design is believed to be explanatory in explaining the effects of teamwork determinants on performance. Data was collected at one point in time which makes the study cross sectional.

The study structure is purely case study in investigating the effect of teamwork on performance of health care organizations taking Tikur Anbesa Specialized hospital as a case organization. Quantitative research design approach was used to gather relevant scientific data to investigate the relationship between teamwork (independent variables) and organizational performance (dependent variable) in Tikur Anbesa Specialized Hospital.

#### **3.3 Types and sources of data**

All the necessary data was gathered from the primary source whom was the healthcare professionals of Tikur Anbesa Specialized Hospital. The primary data was collected through structured questionnaire from the employees still working in TASH.

### **3.4 Target Population**

Tikur Anbesa Specialized Hospital is the pioneer health institution in the country to run a medical school and training healthcare professionals since 1972. TASH (Tikur Anbesa Specialized Hospital) has over 224 doctors, 379 nurses and 115 other health professionals dedicated to providing health care services. The various departments, faculties and residents under specialty training in the School of Medicine provide patient care in the hospital. The hospital also has 950 permanent and contract administrative staff to support the hospital activities. In addition, almost all regional and federal hospitals in Addis Ababa are affiliated to the School of Medicine as clinical services and training sites. The research target population was the health care professional of TASH namely physicians, nurses, pharmacists, radiographers and medical laboratory professionals.

### **3.5 Sampling Frame**

As specified earlier, the target population of this study was healthcare professionals of TASH. The researcher grouped the healthcare professionals in to five categories as Physicians, nurses, pharmacists, laboratories and radiographers. Including all the stakeholders of the healthcare professionals will make the result scientifically sound and free of bias of a single healthcare professional response analysis. There are many sub specializations of almost each categories and the researched used stratified non proportional sampling method to select respondents.

Non healthcare workers at TASH are not included in this study as the focus of the study is on healthcare professionals alone. Medical interns and fresh residents of the hospital are not included in the study because medical interns are not yet graduated though they are the backbone of the hospital medical work. The sub specialty first year program physicians are not also included in the study since their experience is less than one year at TASH. Strata of target populations are used to distribute questionnaire.

### 3.6 Sample size

The Yumane's formula (Yumane, 1964) is used to in selecting the appropriate sample size of Tikur Anbesa Specialized Hospital. The working sample was guided by Yumane's form.

$$n = \frac{N}{1 + N (e^2)}$$

Where;

n = is the sample size

N= is the population

1= is a constant

e<sup>2</sup>= is the estimated standard error which is 5% for 95% confidence

level  $n = 220/1+220(0.05^2) =140$

Accordingly, the researcher used confidence interval of 95%, which is the level of certainty whether the response for each question is the true answer or not. 5% margin of error which is the amount of error from difference in the responses the researcher can tolerate when drawing a conclusion from the data. Hence, 140 is accepted as a representative sample size of the target population

Questionnaires were distributed to 140 employees of TASH. Stratified non proportional sampling was used to select respondents from each department. The below table shows non proportionate sampling, how the representative sample size (140 employee) was distributed across the five strata.

**Table 3.1 Population Distribution**

<i>Population Distribution</i>	<b>Population</b>	<b>Sample Size</b>
		N=140
Physician	224	56
Pharmacy	43	10
Nurses	218	55
Laboratory	41	10
Radiology	34	9

**Source: Own Survey, 2020**

### **3.7 Data collection method**

The aim of this study was to study the impact of teamwork on organizational performance and to study the extent of impact of teamwork determinants impact on the performance of Tikur Anbessa Specialized Hospital. As seen in the literature review, the researcher has reviewed different studies on the subject matter which implies the importance and reason of such as study. Literatures reviewed on the effect of teamwork on organizational performance are indicative of the problem of the study. The study has adopted Katzenbach and Smith 1993 team performance model for the independent variable teamwork measurement scale and organizational performance measurement scale by Norton and Kaplan 1992. Accordingly, the data collection instrument, questionnaire was developed having three parts: Part I is to collect the respondents basic/demographic information, Part II is questions to assess the respondent's level of agreement on teamwork and Part III contains questions to assess to what extent the organizational performance is achieved according to the respondent. The measurement scales involve closed ended questions with Likert scale was applied from Strongly Disagree (1) to Strongly Agree (5) to what extent the respondent agree for dependent and independent variables list of questions.

### **3.8 Data Collection Procedure**

After the research proposal was submitted to the advisor, approval was obtained and logistics were prepared to collect data. In due time, a pilot questionnaire was given for 2 respondents from each department and appropriate wording and minor errors on questionnaire was corrected. The final

questionnaire was distributed accordingly based on the classified groups. The questionnaires were collected after 3 days by going door by door. It takes 4 days to finish distributing the questionnaires and more than 5 days to collect.

### **3.9 Data Content**

The primary data was collected from healthcare professionals working in Tikur Anbesa Specialized hospital through structured questionnaire. Questionnaire was used for gathering information from respondents about the effect of teamwork on the performance of the healthcare institution.

The primary instrument for data collection in this research was structured questionnaire having three parts. The main part of the questionnaire was part 2 and part 3 which measures the teamwork performance of the case in the study and organizational performance respectively. Thus, teamwork was measured using the measurement dimension adapted from the Katznbach and Smith 1993. The team performance model has six team basic parts and the researcher minimized in to five parts, namely communication, adequate skill, meaningful purpose and specific goals, working approach and mutual accountability using a 5 - point Likert scale, on which label given for respondent to express their level of agreement for each item among the scales and then the average score on each trait was used during data analysis and interpretation. In addition, organizational performance was measured by using non-financial performance measurement questionnaire. This part contains 15 questions that measure the organizations level of non-financial performance in three perspectives which are customer perspective, internal process perspective and innovation and learning perspective according to the BSC by Norton and Kaplan (1992).

### **3.10 Validity and Reliability**

Validity concerns whether an instrument can accurately measure, while reliability pertains to the consistency in measurement. Validity and reliability of the measures need to be assessed before using the instrument of data collection (Hair et al., 2003). As stated by Hair et al., (2007) reliability implies the extents to which some variables or set of variables is consistent in what it is intended to measure. Reliability analysis was used to measure the consistency of a questionnaire. There are different methods



of reliability test, for this study Cronbach’s alpha is considered to be suitable. Cronbach’s alpha is the most common measure of reliability. The Alpha coefficients for the dimensions and the overall scale calculated as a reliability indicator were presented in the following table. As described by Andy (2006), the values of Cronbach’s alpha more than 0.7 is considered to be acceptable. The alpha values in this study were 0.934 and which confirmed that there is a good reliability for the questioners.

**Table 3.2 Result of reliability analysis for the questionnaire**

Reliability Statistics	
<b>Part II: Teamwork performance determinants at TASH</b>	
Cronbach's Alpha	N of Items
0.934	25
<b>Part III: Organizational Performance of TASH</b>	
Reliability Statistics	
Cronbach's Alpha	N of Items
0.860	15
<b>Overall</b>	
Reliability Statistics	
Cronbach's Alpha	N of Items
0.934	40

**Source: Own survey 2020**

### 3.11 Method of Data Analysis

The researcher analyzed and interpreted the data by using Statistical Package for Social Sciences (SPSS) 23, descriptive and regression analysis methods. This cross-sectional data / single point in time responses was analyzed and interpreted through Pearson Correlation and regression analysis to determine the relationship and the effect of the two variables by using SPSS 23. The data was analyzed using descriptive and inferential statistics helpful to identify and describe how the independent variables (teamwork) affect dependent variables (non-financial performance) and lastly to give some recommendation based on the findings from the analysis. Major findings were interpreted based on the result from the analysis. All data was analyzed using SPSS and study was descriptive; hence it was analyzed in terms of mean, standard deviation, and correlation matrix.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS & INTERPRETATION

#### 4.1 Introduction

This chapter describes the analysis and interpretation of the collected data about the Relationship between teamwork and organizational performance taking Tikur Anbesa Specialized Hospital (TASH) as a case company. The chapter is consisting of different topics such as: introduction, response rate, demographic characteristics of respondents, communication in teamwork, Adequate level of skills in teamwork, Meaningful purpose and goals, working approach, mutual accountability and Non- financial performance. Finally, the chapter presents the relationship and effect of teamwork on performance using correlation and regression analysis.

#### 4.2 Response Rate of the Respondents

Out of 140 questionnaires distributed to the healthcare professionals in TASH, 126 of questionnaires were collected and the response rate was 90%, of which 14 questionnaires were not properly filled and not considered for final analysis.

**Table 4.1 Response Rate of Respondents**

Target population	Total questionnaire Distributed	Questionnaire Returned	Not properly filled	Response Rate
220	140	126	12	90%

**Source: Own survey 2020**

#### 4.3 Demographic Characteristics of Respondents

The first part of the questionnaire was demographic information giving the general profile of respondents. In this study, age, gender, educational level, experience at TASH, department and team role. The results obtained from the structured questionnaires are presented on the table 4.2.

**Table 4.2 Demographic Characteristic of the Respondents**

<b>General Profile</b>			
		<b>Frequency</b>	<b>Percent (%)</b>
<b>Age</b>	21-30	60	52.6%
	31-40	38	33.3%
	41-50	16	14.0%
	51-60	0	0.0%
	Total	114	100.0%
<b>Gender</b>	Male	47	41.2%
	Female	67	58.8%
	Total	114	100.0%
<b>Educational Background</b>	Diploma	1	0.9%
	Degree	81	71.1%
	Postgraduate	32	28.1%
	Total	114	100.0%
<b>Department</b>	Physician	45	39.5%
	Pharmacy	10	8.8%
	Nurse	40	35.1%
	Laboratory	10	8.8%
	Radiology	9	7.9%
	Total	114	100.0%
<b>Experience at TASH</b>	<5 years	50	43.9%
	5-10 years	37	32.5%
	11-15 years	22	19.3%
	>15 years	5	4.4%
	Total	114	100.0%
<b>Your role at the Team</b>	Team member	88	77.2%
	Team leader	26	22.8%
	Total	114	100.0%

**Source: Own survey 2020**

Out of the total 114 respondents, 60(52.6%) of the respondents are between 21 to 30 years old whereas 38(33.3%) were from 31 to 40years old. 16(14%) were from 41 to 50 years. This indicates that all almost age groups are participated in the study. From the 114 respondents 47(41.2%) were male and 67(58.8%) of the respondents were female which ensures an equal gender distribution. Seeing the educational level of the respondents, the majority of them 81(71.1%) are first degree holders, 32(28.1%) are post graduates and above while only 1(0.9%) was only diploma holder. This implies that the respondents are the right fit to read, understand and answer the questions. Regarding to the department or profession of the respondents, 45(39.5%) of the respondents are physicians while 10(8.8%) are pharmacists. 40(35.1%) of the respondents are nurses and 10 (8.8%) are laboratory professionals while 9 (7.9%) are radiography professionals. The researcher has tried to include all healthcare professionals in the study and the data above confirmed the professional distribution of the respondents. 50(43.9%) of the respondents are below 5 years of working experience in TASH, 37 (32.5%) of respondents served the hospital under the study 6 to 10 years. 22(19.3%) of respondents served the hospital under the study 11 to 15 years. the remaining 5(4.4%) served the hospital for above 15 years which implies that almost all respondents are well experienced to give answers on teamwork in the hospital. Out of the total 114 healthcare professionals, the majority 88(77.2%) are team members while the rest 26(22.8%) are team leaders at TASH which signifies the involvement of both team members and team leaders in the study.

#### **4.4 Descriptive Analysis on teamwork**

To study the teamwork at Tikur Anbesa specialized hospital, its healthcare professionals were asked to give their level of agreement with regard to the five team basics according to Katznbach and Smith 1993 model of team performance. The five team parameters used in the questionnaire were organized under five points of likert scale and responses were analyzed with descriptive statistics of mean and standard deviation. A 5-point Likert scale was used to rate the various indicators whereby 1 point was accorded to 'Strongly disagree', 2 point as 'Disagree', 3-point as 'Neutral', 4-point as 'Agree', and 5-point as 'Strongly Agree'. The analysis results are presented in subsequent tables each deals with one dimension of teamwork at Tikur Anbesa Specialized Hospital. According to Zaidation and Bagheri (2009), the mean score below 3.39 is considered as low, the mean score from 3.40 up to 3.79 is considered as moderate and mean score above 3.8 is considered as high. In this section, frequency distribution and the percentage of respondents for each dimensions teamwork in TASH using the Katznbach and Smith team basic

components; communication, adequate level of skills, meaningful purpose and specific goal, working approach and mutual accountability.

#### 4.4.1 Practice of Communication at TASH

This section discusses about the communication dimension of the teamwork determinants of Tikur Anbesa Specialized Hospital. The communication part of teamwork is determined by the five questions stated in the questionnaire as stated in the following table.

**Table 4.3: The Communication teamwork parameter at TASH**

Description	N	Mean	Std. Dev
In TASH, a team member can easily and frequently communicate within team.	114	3.11	0.856
Discussions within the team are open.	114	3.06	0.943
Feedbacks are communicated easily.	114	3.01	1.035
The messages communicated during any type of team relevant and reliable.	114	3.34	0.967
The presence of easy communication and flow of ideas leads to team performance.	114	3.54	1.107
Valid N (list wise)	114		
<b>Communication</b>		<b>3.21</b>	<b>0.982</b>

**Source: Own Survey, 2020**

Communication as one part of teamwork dimension at TASH scored mean ranges from the smallest 3.11 (a team member can easily and frequently communicate within the team of TASH) to the largest 3.54 (the presence of easy communications and flow of ideas leads to team performance). The communication within teamwork in TASH is found to be a common practice with a mean score of  $M=3.21$  which is a low agreement. In general, the communication within the teams is then evaluated to have been practiced to the level  $M=3.21$  and this result shows that the practice of TASH is low according to the frame work suggested by Zaidation and Bagheri (2009). The standard deviation of communication part of teamwork measurement is 0.92 which is low as depicted above on table 4.3, this shows most of individual responses are close to the average mean. This analysis of the gathered data shows that there is a significant gap in communication between organizations which may result in lowering organizational performance. Other

studies have also showed that the poor communication between healthcare professionals in accomplishing their work has lead to a lot of unwanted results such as patient complications and even death (Health Council of Canada 2005).

#### 4.4.2 Practice of adequate level of skills at TASH

The presence of adequate level of skills in enhancing teamwork performance leading to organizational performance is discussed in this sub chapter. The parameter is studied by using the five questions listed on the questionnaire and results are discussed in the following table 4.4.

**Table 4.4: The adequate level of skills teamwork parameter at TASH**

<b>Description</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev</b>
All three categories of skills (technical, interpersonal and conflict resolution skills) either actually or potentially represented across the membership within the team at TASH	114	3.11	0.880
Members, individually and collectively, are willing to spend the time to help themselves and others to learn and develop skills.	114	3.34	0.881
The presence of adequate level of skills within our team helps team to perform better.	114	3.54	0.979
Trainings given for team skill and knowledge development are effective and resources used are adequately.	114	3.17	1.047
Team knowledge and skill sharing are relevant to the actual jobs and projects.	114	3.76	1.108
Valid N (list wise)			
<b>Adequate levels of complementary skills</b>		<b>3.38</b>	<b>0.979</b>

**Source: Own Survey, 2020**

The presence of adequate level of skills as another dimension of teamwork determinant has scored from the smallest mean 3.11 (All three categories of skills (technical, interpersonal and conflict resolution) either actually or potentially represented across the membership within the team at TASH) to the highest mean value 3.76 (Team knowledge and skill sharing are relevant to the actual jobs of and projects). The presence of adequate level of skills within teams of TASH is found to be a common phenomena with mean of  $M=3.38$ . According to Zaidation and Bagheri (2009), the presence of adequate level of skills within teams of TASH is found to be low because the mean value is less than 3.39 but in a better way than where communication is within the teams. This raises a question of presence of adequate skills within medical teams of TASH which needs to be investigated more. The standard deviation of adequate level of skills measurement is 0.979 which is low as depicted above on table 4.4 which shows most responses are close to mean.

#### **4.4.3 Practice of meaningful purpose and specific goal at TASH**

In this chapter, meaningful purpose and specific goal components of teamwork determinants are studied. The presence of meaningful purpose and specific goals are discussed using the five questions listed in the questionnaire and results are discussed in the following table 4.5.

The presence of meaningful purpose and specific goals with the teams of TASH as part of teamwork determinant has scored a mean of the smallest  $M=2.98$  (the team goals within TASH are flexible) and of the highest  $M=3.21$  (team purpose and goals are clear, simple and measurable. If not measurable, at least their achievements can be determined). The meaningful purpose and specific goals within teamwork in TASH is found to be a common practice with a mean score of  $M=3.11$  which is a low agreement. In general, the presence of meaningful purpose and specific purpose with teams of TASH is evaluated to have been practiced to the level  $M=3.11$  and this result shows that the practice of teams to have meaningful purpose and specific goals of TASH is low according to the frame work suggested by Zaidation and Bagheri (2009). The standard deviation of communication part of teamwork measurement is 0.971 which is low as depicted above on table 4.5, this shows most of individual responses are close to the average.

**Table 4.5: The Purpose and Goals Parameter at TASH**

<b>Description</b>	<b>N</b>	<b>Mean</b>	<b>Std.Dev</b>
The team purpose and goal within TASH is in line with the greater organizational purpose.	114	3.08	0.997
All members understand and articulate purpose of the team in the same way and mention it in communications with other staffs.	114	3.11	0.990
Team purpose and goals are clear, simple and measurable. If not measurable, at least their achievement can be determined	114	3.21	0.877
The team goals within TASH are flexible.	114	2.98	1.004
The team goals given for the team to achieve are real and achievable.	114	3.17	0.986
Valid N (listwise)			
<b>Meaningful purpose and Specific goals</b>		<b>3.11</b>	<b>0.971</b>

**Source: Own survey 2020**

Katzenbach and Smith 1993 mentioned several ways of differentiating an effective team from its counterpart. One of strongly mentioned idea is teams having meaningful purpose and clear and specific goals are main characteristics of effective teams. They stated that poorly organized teams are with no purpose and target to achieve as performance and teamwork cannot be seen inseparably.

#### **4.4.4 Practice of Clear Working Approach at TASH**

The working approach by teams of TASH as one determinant of teamwork performance is discussed in this chapter. Five questions are listed in the questionnaire to study the working approach dimension of teamwork and results are discussed in table 4.6 below.



**Table 4.6: Working Approach Parameter at TASH**

Description	N	Mean	Std. Dev
The working approach is concrete, clear, and really understood and agreed to by everybody and result in achievement of the objectives.	114	3.06	1.016
The working approaches require all members to contribute equivalent amounts of real work.	114	3.11	1.062
The approaches team uses in TASH provide for open interaction, fact-based problem solving, and results-based evaluation.	114	2.85	0.952
The teamworking approaches used in TASH are efficient with regard to time and resources used.	114	2.91	1.009
Adequate attention is given for innovation and problem solving in the teamworking approach.	114	2.68	1.077
Valid N (list wise)	114		
<b>Clear working approach</b>		<b>2.92</b>	<b>1.023</b>

**Source: Own survey 2020**

The presence of clear working approach as another dimension of teamwork determinant has scored from the smallest mean  $M=2.68$  (Adequate attention is given for innovation and problem solving in the teamworking approach) to the highest mean value  $M=3.11$  (The working approaches require all members to contribute equivalent amounts of real work). The working approach within teams of TASH is found to be a common phenomena with mean of  $M=2.92$ . According to Zaidation and Bagheri (2009), the practice of teams of TASH to have clear working approach is found to be low because the mean value is less than 3.39. The standard deviation of adequate level of skills measurement 1.023 which is low as depicted above on table 4.4 which shows most of individual responses are close to the mean.

Teams which know where to go and cautiously and agreeably select how to reach there are teams with clear working approach (Katzenbach and Smith 1993). Many effective teams observed by these gentlemen's were characterized by their clear and all agreeable working approach to reach where the team aimed (Katzenbach and Smith 1993).

#### 4.4.5 Practice of Mutual Accountability at TASH

The sense of mutual accountability as one dimension of teamwork performance is discussed in this chapter using the five measuring questions listed on the questionnaire in Likert scale from 1 to 5. The results of study on sense of mutual accountability within teams of TASH healthcare professionals are discussed in table 4.7 below.

The presence of sense of mutual accountability within the teams of TASH as part of teamwork determinant has scored a mean of the smallest M=2.96 (There is a sense that only the team can “fail” within almost all team members) and of the highest M=3.30 (Every team member, individually and jointly, is accountable for the team's purpose, goals, approach, and work-products).

**Table 4.7: The Sense of Mutual Accountability Teamwork at TASH**

Description	N	Mean	Std.Dev
Every team member, individually and jointly, is accountable for the team's purpose, goals, approach, and work-products.	114	3.30	0.968
Members are clear on what they are individually responsible for and what they are jointly responsible for as far as teamwork is concerned.	114	3.18	1.035
There is a sense that only the team can ‘fail’ within almost all team members.	114	2.96	1.055
Self reflection on any risen ideas within team is taken to improve the mutual accountability.	114	3.11	0.999
There is regular monitoring and evaluation within teams to ensure where the team is and how team is doing.	114	3.27	0.971
Valid N (listwise)			
<b>Sense of mutual accountability</b>		<b>3.16</b>	<b>1.006</b>

**Source: Own survey 2020**

The sense of mutual accountability within teamwork in TASH is found to be a common practice with a mean score of M=3.16 which is a low agreement. In general, the practice of mutual sense

of accountability within the teams of TASH is evaluated to have been practiced to the level  $M=3.16$  and this result shows that the practice of teams to have sense of mutual accountability in TASH is low according to the frame work suggested by Zaidation and Bagheri (2009). The standard deviation of communication part of teamwork measurement is 1.006 which is low as depicted above on table 4.7, this shows most of individual responses are close to the average /mean.

Having a strong team spirit is one of the criteria mentioned by many scholars for teams to be effective. There must be a mutual trust and accountability within teams for teams to develop team spirit which helps teams to accomplish tasks all together with high degree of trust and understanding (Katzenbach and Smith 1993).

#### **4.5 Descriptive Analysis on Organizational Performance**

In this section organizational performance is assessed using non-financial performance indicators i.e. the BSC, which is developed by Norton and Kaplan (1992). According to this work, organizational Non -financial performance is evaluated with respect to its three sub-dimensions each having three questions each i.e. Customer perspective, Internal process perspective and Innovation and Learning perspective. Employees then rated these statements with a five-scale agreement and it is presented as follows the result of the analysis is presented in table 4.8 as depicted under.

**Table 4.8 The Organizational Performance at TASH**

<b>Description</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev</b>
Patients coming to get the service of the hospital are satisfied.	114	3.22	0.929
In relative to other similar government hospitals, patients choose TASH for its service.	114	3.44	1.234
TASH has a reputable image and recognition before its customers.	114	3.65	1.248
Customers treated in TASH are generally felt comfortable with the expenses incurred by the service.	114	3.79	1.068
Patients are probably to choose TASH for their next medical or surgical treatment.	114	3.61	1.060
Patients are served within the standard time limit given by the hospital.	114	3.18	1.177
There are variety of services and procedures given for patients at TASH.	114	4.25	0.939
There is a standard of procedure for every department and are set to ensure jobs are done according to the standard procedure.	114	3.76	0.962
Safety procedures are strictly followed by the hospital and monitored regularly.	114	3.46	0.997
There is a system to follow up patients after treatment and patients are happy about it.	114	3.11	1.229
I am improving productivity, quality, and customer satisfaction via the services I provide to the hospital.	114	3.64	0.884
The staff turnover in TASH is low so that employees are staying longer.	114	3.64	1.006
My staffs are competent enough and contribute for the success of the hospital.	114	3.85	0.790
My service and contributions to the hospital is recognized and appreciated.	114	2.88	1.228
There is adequate room for growth and development in TASH.	114	2.92	1.106
<b>Organizational performance</b>		<b>3.49</b>	<b>1.057</b>

**Source: Own Survey, 2020**

The average agreement to these statements ranges from the smallest mean  $M=2.88$ (My service and contributions to the hospital is recognized and appreciated) to the largest mean  $4.25$ (There are variety of services and procedures given for patients at TASH). This result of analysis indicates that teamwork has some moderate amount of rating on organizational performance. Overall, the Non-financial performance level of TASH as perceived by the sampled employees is computed to the level  $M=3.49$ , which is a moderate level of performance. This implies that teamwork affects the performance moderately to the level  $M=3.49$ . The standard deviation of organizational performance measurement is  $1.057$  which is low as depicted above on table 4.8 which shows most of individual responses for this dimension are close to the average mean.

#### **4.6 Correlation Analysis**

The main objective of this study is to find out the impact of teamwork on organizational performance of Tikur Anbesa Specialized Hospital. In order to evaluate this relationship, a Pearson Product Movement Correlation Coefficient is conducted with the result shown in the matrix below. As per Saunder (2009), a correlation coefficient analysis enables to quantify the strength of the linear relationship between variables. This coefficient is usually represented by 'r' and can take only the value from  $-1$  to  $+1$ .

In investigating the relationship between the independent and dependent variables under study, the study has implemented correlation analysis. Pearson correlation analysis was used to provide evidence of convergent validity. The magnitude and direction of relationships (either positive or negative) and the intensity of the relationship ( $-1.0$  +  $1.0$ ) can be explained by using Pearson correlation coefficients. Correlations are perhaps the most basic and most useful measure of association between two or more variables (Marczyk, Dematteo and Festinger, 2005).

**Table 4.9 Correlation Analysis Matrix**

		<b>Organizational Performance</b>
<b>Organizational Performance</b>	Pearson Correlation	1
	Sig. (2-tailed)	
	N	114
<b>Communication</b>	Pearson Correlation	0.116
	Sig. (2-tailed)	0.219
	N	114
<b>Adequate levels of complementary skills</b>	Pearson Correlation	0.2342*
	Sig. (2-tailed)	0.013
	N	114
<b>Meaningful purpose and Specific goals</b>	Pearson Correlation	0.503**
	Sig. (2-tailed)	0
	N	114
<b>Clear working approach</b>	Pearson Correlation	0.533**
	Sig. (2-tailed)	0
	N	114
<b>Sense of mutual accountability</b>	Pearson Correlation	0.560**
	Sig. (2-tailed)	0
	N	114

\* Correlation is significant at the 0.05 level (2-tailed).

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

**Source: Own Survey, 2020**

Pearson correlation is +1 in the case of a perfect increasing (positive) linear relationship (correlation), -1 and 1 in all other case indicating the degree of linear dependency between variable. To determine the relationship between the five teamwork determinants of TASH using non-financial organizational performance measures dimensions, Pearson correlation was computed. Table 4.9, the correlation analysis matrix, presents the results of Pearson correlation on the relationship.

The correlation coefficient, denoted by  $r$ , is a measure of the strength of the straight-line or linear relationship between two variables. If the p-value is less than 0.05, then there is a statistically significant relationship between the variables.

Correlation coefficient( $r$ ) strength of the correlation is as follows. From 0.01 up to 0.09 is negligible association; from 0.1 to 0.29 is low association. From 0.30 to 0.49 is moderate

association. From 0.50 to 0.69 is substantial association and if 0.70 and above, it is a very strong association between the study variables.

According to the correlation matrix table 4.9 , the result of the correlation coefficient,  $r$  revealed that there is positive relationship between organizational performance and four of the five teamwork determinants namely adequate level of skills, meaningful purpose and specific goals, working approach and sense of mutual accountability. The sense of mutual accountability parameter is the parameter with strong relationships with organizational performance indicated ( $r=0.560$ ,  $p=0$ ), followed by the clear working approach parameter with  $r=0.533$ ,  $p=0$  and meaningful purpose and specific goals with an  $r=0.503$ ,  $p=0$ . Communication has shown no statically relationship as P value is 0.219.

These positive relationships between four of the teamwork determinants and organizational performance indicate that the performance has increased due to an adequate level of practice of these four teamwork performance determinants. An increase in one teamwork parameter is associated with an increase in organizational performance.

At the case organization, organizational performance is found to be positively associated with four of the five teamwork measuring parameters though not in a same level of association. The strongest association with organizational performance is with the presence of mutual accountability within teamwork followed by clear working approach and meaningful purpose and specific goals. All these three dimensions of teamwork have an  $r$  value of more than 0.5 so that have a substantial association with organizational performance of TASH. Adequate level of skills has an  $r$  value of in between 0.1 to 0.29 which dictates its association to be lower with organizational performance as per Pearson coefficient analysis. No statistical relationship were found between team communication and performance of organization. Overall, all teamwork measuring parameters, except communication, had significant positive correlation with non financial performance of Tikur Anbesa Specialized

Hospital. This implies when there is an increase on those teamwork parameters results an increase in organizational performance.

Improved communications within teams of healthcare professionals helped in better treatment outcomes of patients and improved achievement of job goals which is related with improving organizational performance (Health Council of Canada 2005). Meaningful purpose, adequate level of skills and specific goals and clear working approach are mentioned as major characteristics of effective teams (Katzenbach and Smith 1993). The results of this study are believed to be in line with major findings of many studies though not at all.

#### **4.7 Multiple Regression Analysis for the Effect of teamwork on performance**

The data was checked using Normality test and Multi Co linearity Statistics before multiple regression analysis was performed. This study has used multiple regression analysis to examine the relationships between the study variables; the independent variable organizational performance of TASH and teamwork parameters.

As commented by George et al, 2003, multiple regressions are the most common and widely used to analyze the relationship between a single continues dependent variable and multiple continues on categorical independent variable. The coefficient of regression which is represented by  $R^2$  measures the proportion in a dependent variable that can be explained by the independent variables.

The following table presents the results of multiple regressions analysis. Here the squared multiple correlation coefficients ( $R^2$ ) which tells the level of variance in the dependent variable (Non-financial Performance of TASH) that is explained by the model summary below.



#### 4.7.1 Skewness and Kurtosis

It is the degree of distortion from the symmetrical bell curve or the normal distribution. It measures the lack of symmetry in data distribution. A symmetrical distribution will have a skewness of 0. Positive Skewness means when the tail on the right side of the distribution is longer or fatter. The mean and median will be greater than the mode. Negative Skewness is when the tail of the left side of the distribution is longer or fatter than the tail on the right side. The mean and median will be less than the mode.

- | ) If the skewness is between -0.5 and 0.5, the data are fairly symmetrical.|
- | ) If the skewness is between -1 and -0.5(negatively skewed) or between 0.5 and 1(positively skewed), the data are moderately skewed.|
- | ) If the skewness is less than -1(negatively skewed) or greater than 1(positively skewed), the data are highly skewed.|

Kurtosis is used to describe the extreme values in one versus the other tail. It is actually the measure of outliers present in the distribution.

The skewness for of data is indicated in the allowable limit as well as the kurtosis. For skewness (-1, 1) and for kurtosis (-1.96, 1.96) is an acceptable range for being normally distributed.

**Table 4.10 : Skewness and Kurtosis of Data**

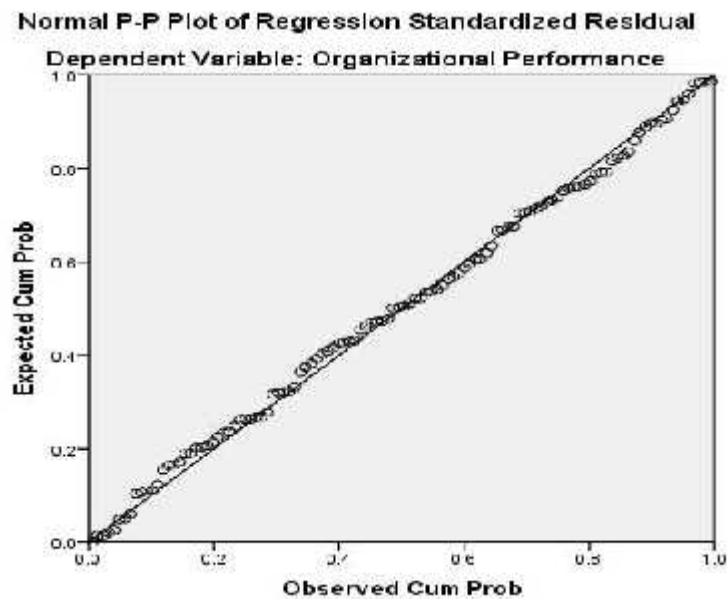
		<b>Organi zational Perfor mance</b>	<b>Comm unicati on</b>	<b>Adequate level of Skills</b>	<b>Purpose And Specific Goals</b>	<b>Clear Worki ng Appro ach</b>	<b>Sense of Mutual accounta bility</b>
<b>N</b>	<b>Valid</b>	114	114	114	114	114	114
	<b>Missing</b>	0	0	0	0	0	0
Skewness		-.791	.053	-.395	-.354	.298	-.175
Std. Error of Skewness		.226	.226	.226	.226	.226	.226
Kurtosis		1.106	.095	.355	.236	.041	-.176
Std. Error of Kurtosis		.449	.449	.449	.449	.449	.449

Source: Own survey, 2020

#### 4.7.2 Normality Test

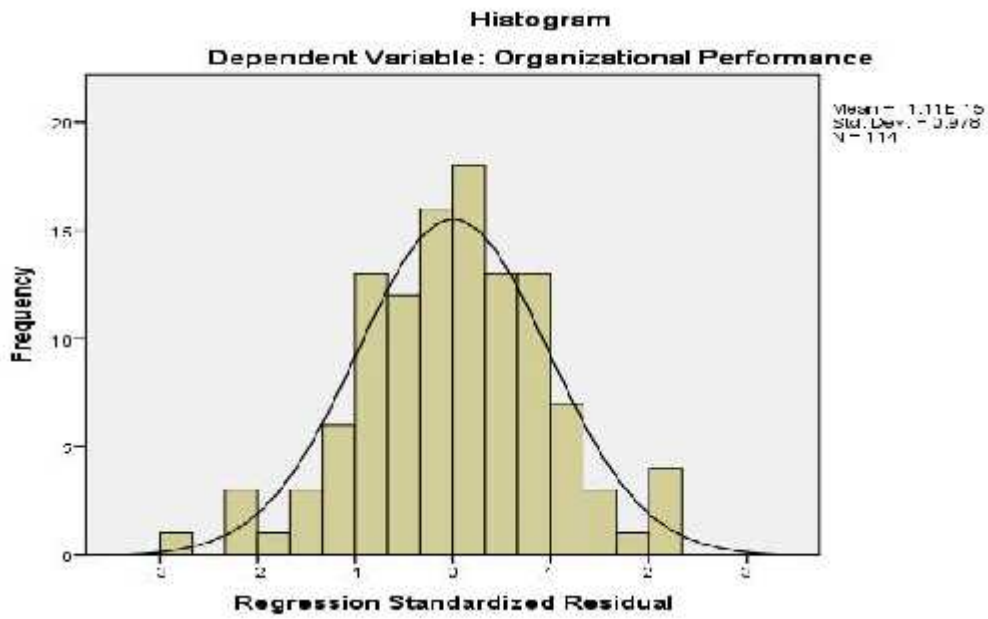
The Normality test is used to see whether the observations are clustered around the straight line or not. Normality plot graph, histogram graph and scatter plot graphs were generated for the normality test. In the Normality plot graph shown below, it was observed that majority of the observations cluster around the straight line which signifies that the distribution is normal and it can be used to perform the multiple regression analysis. The histogram graph below have a bell shaped structure; therefore the data is approximately normally distributed. The scatter plot shows the distribution is approximately normal since majority of the plots are scattered around a straight line if we draw a straight line.

**Figure 4.1: Normality P-P Plot Graph**



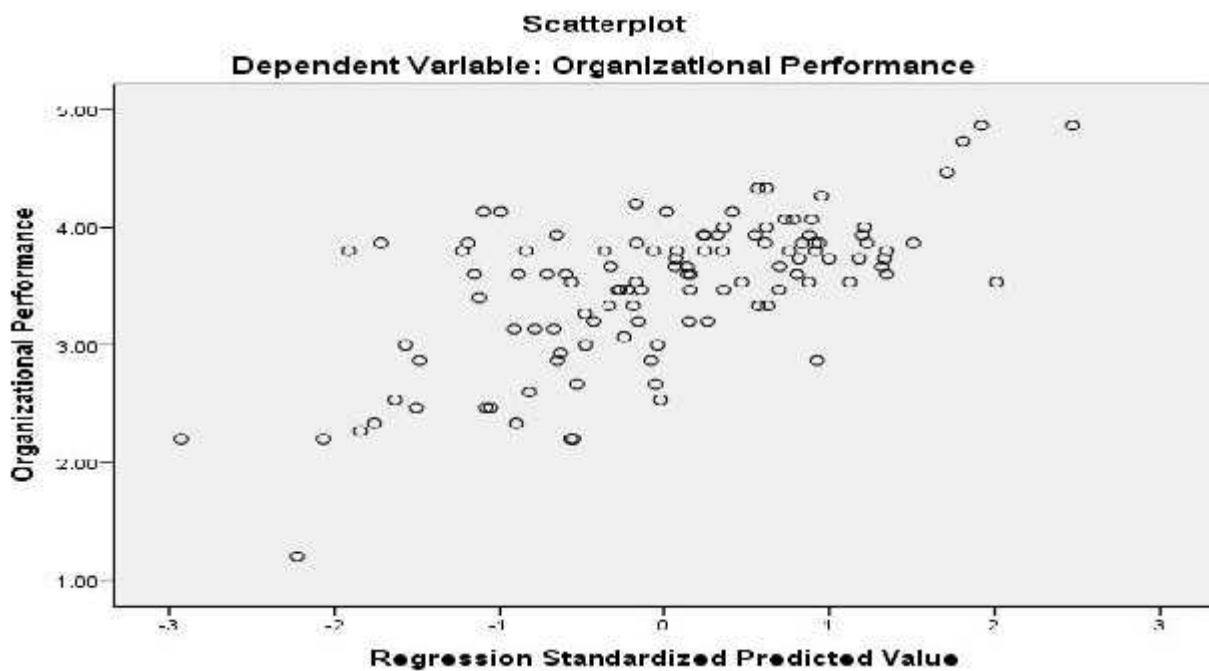
Source: Own Survey 2020

**Figure 4.2: Histogram Graph**



Source: Own Survey 2020

**Figure 4.3: Scatter Plot Graph**



Source: Own Survey 2020

### 4.7.3 Multi Collinearity Statistics

According to Pallant (2005), tolerance is an indicator of how much of the variability of the specified independent variable is not explained by another independent variable in the model and if its value is less than 0.1, it indicates that the multiple correlations with other variables is high, implying possibility of multicollinearity. On the other hand if VIF value is above 10, it signals chance of multicollinearity. From the multicollinearity statistics table shown below, none of the values of the tolerance are less than 0.1 and none of the values of the VIF are greater than 10. Therefore, there is no multicollinearity among all the five parameters used for the study. This reveals that the collected data is a good raw for multiple regression analysis.

**Table 4.11 Multi Collinearity Statistics table**

Variables	Co linearity Statistics	
	Tolerance	VIF
Communication	0.586	1.707
Adequate levels of complementary skills	0.56	1.786
Meaningful purpose and Specific goals	0.357	2.803
Clear working approach	0.313	3.19
Sense of mutual accountability	0.413	2.419

**Source: Own Survey 2020**

#### 4.7.4 Model Summary

The coefficient of determination, i.e. adjusted R Square, is computed to be 0.382=38.2%. That implies 38.2% of the variation of organizational performance of TASH can be predicted by the independent variables namely communication, adequate level of skills, meaningful purpose and specific goals, working approach and sense of mutual accountability. The other 61.8% of organizational performance of TASH can be explained by other variables.

**Table 4.12 Model Summary of Regression Analysis**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.640 <sup>a</sup>	0.409	0.382	0.48699

a. Predictors: (Constant), Sense of mutual accountability, Communication, Adequate levels of complementary skills, Meaningful purpose and Specific goals, Clear working approach.

b. Dependent Variable: Organizational Performance

**Source: SPSS Regression results output, 2020**

#### 4.7.5 ANOVA Test

The F-ratio in the ANOVA table shows that the independent variables significantly predict the dependent variable. The F value,  $F= 14.963$ , at  $p=0.01$ , implies that the regression model is a good fit of the data. The ANOVA table 4.11 Shows that accepting at least one of the teamwork determinants of TASH (Sense of mutual accountability, Communication, Adequate levels of complementary skills, Meaningful purpose and Specific goals, Clear working approach) had a prediction on organizational performance measures, since the p-value for F-Statistics (0.000) less than the significance level 0.05.

**Table 4.13 Table of ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.743	5	3.549	14.963	.000
	Residual	25.614	108	0.237		
	Total	43.357	113			

a. Dependent Variable: Organizational Performance

b. Predictors: (Constant), Sense of mutual accountability, Communication, Adequate levels of complementary skills, Meaningful purpose and Specific goals, Clear working approach

**Source: SPSS Regression results output, 2020**

#### **4.8 Multiple Regression Analysis**

Multiple regression analysis is used to find out whether there was statistically significant relation between organizational performance and the five components of teamwork or not. Multiple regressions is used to develop a formula which shows the relationship between the dependent variable and the independent variables.

The standardized beta coefficient tells us the unique contribution of each factor to the model. A high beta value and a small p value ( $<0.05$ ) indicate the predictor variable has made a significance statistical contribution to the model. On the other hand, a small beta value and a high p value ( $p >0.05$ ) indicate the predictor variable has little or no significant contribution to the model George et al (2003).

**Table 4.14 Coefficient Table**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Band	Upper Band
1 (Constant)	2.316	0.265		8.747	0.000	1.791	2.840
Communication	-0.220	0.079	-0.269	-2.789	0.006	-0.376	-0.064
Adequate levels of complementary skills	-0.041	0.096	-0.043	-0.432	0.667	-0.231	0.149
Meaningful purpose and Specific goals	0.225	0.099	0.280	2.263	0.026	0.028	0.422
Clear working approach	0.166	0.101	0.217	1.644	0.103	-0.034	0.366
Sense of mutual accountability	0.265	0.088	0.346	3.006	0.003	0.090	0.440

- a. Dependent Variable: Organizational Performance
- b. Predictors: (Constant): Sense of mutual accountability, Communication, Adequate levels of complementary skills, Meaningful purpose and specific goals, Clear working approach

**Source: PSS Regression results output, 2010**

Multiple regression model was used to study the relationship between the study variables. Based on the coefficient table 4.11, the following model is used using the five Xs (the five teamwork determinants) and Y as organizational performance.

$$Y = 2.316 - 0.269X_1 - 0.043X_2 + 0.280X_3 + 0.217 X_4 - 0.346X_5$$

Y=Organizational Performance

X1=Communication

X2= Adequate levels of complementary skills

X3= Meaningful purpose and Specific goals

X4= Clear working approach

X5= Sense of mutual accountability

#### **4.9 Hypothesis Testing**

The research starting hypotheses were tested based on the standardized coefficients and beta and p-value to test whether the research hypotheses are accepted or rejected.

**Hypothesis 1:** Teamwork has an impact performance of organization through effective communication.

Communication has a negative and significant relationship to organizational performance at  $B = -0.269$ ,  $p = 0.005$ . The beta value ( $-0.269$ ) shows as one-unit increase in Communication there will be 26.9% decrease on organizational performance. This result means communication has a negative and significant influential relationship to organizational performance. The researcher did not find any negative association between communication and organizational performance. Studies showed that a poor communication led to poor performance of patient treatment outcome. The health council of Canada 2005 mentioned communication as one of the effective teamwork attributes. Therefore, the researcher may reject the hypothesis;

**Hypothesis 2:** Teamwork has an impact performance of organization through the presence of adequate level of skills.

Adequate level of skill has a negative relationship to organizational performance with beta value of  $Beta = -0.043$ , at a confidence interval of  $p = 0.667$ . This means for one point of increase in adequate level of skills, there will be 4.3% decrease in organizational performance in a p value



of  $p=0.667$ . Since the p-value is 0.667 which is greater than 0.05 and the relationship is negative, the researcher may accept the reject the hypothesis. Katzenbach and smith 1993 evidenced that smart and effective teams are characterized by significant composition of knowledge and skills needed in the team. Daft 2008 also noted that one of the reasons why teams are needed in organizational job design is because teams are with complementary skills.

**Hypothesis 3:** Teamwork has an impact performance of organization through teams with meaningful purpose and specific goals.

The results of multiple regressions, as presented in table 4.11 above, revealed that having meaningful purpose and specific goals have a positive and significant relationship to Organizational Performance of TASH with Beta = 0.280 at 95% confidence level ( $p < 0.05$ , P-value=0.026). The beta value (0.28) shows as one-unit increase in meaningful purpose and specific goals, there will be 28% increase on organizational performance. Therefore, the researcher accepts the hypothesis, and this indicates that meaningful purpose and specific goals has a positive and significant relationship to organizational performance of TASH using non financial balanced score card organizational measures. Teams with meaningful purpose and specific performance goals are characterized by achievement of team performance (Katzenbach and Smith 1993).

**Hypothesis 4:** Teamwork has an impact performance of organization through teams with clear working approach.

The results of multiple regressions, as presented in table 4.11 above, revealed that clear working approach have a positive and significant relationship to organizational performance of TASH using non-financial performance measures with  $B=0.217$ ,  $p=0.103$ ). The beta value (0.217) shows as one-unit increase in clear working approach, there will be 21.7% increase on organizational performance but with  $p > 0.05$ . Therefore, the researcher rejects

the hypothesis.

**Hypothesis 5:** Teamwork has an impact performance of organization through teams with strong mutual accountability.

The results of multiple regressions, as presented in table 4.11 above, revealed that sense of mutual accountability have a positive and significant relationship to organizational performance of TASH using non-financial performance measures with Beta = 0.346, at 95% confidence level ( $p < 0.05$ , P-value=0.003). The beta value (0.346) shows as one-unit increase in sense of mutual accountability, there will be 34.6% increase on organizational performance. Therefore, the researcher accepts the hypothesis; this indicates that sense of mutual accountability has a positive impact on organizational performance of TASH under non-financial performance measures. The sense of mutual accountability within teams is found to increase positive team spirit and has build trust and confidence between team members (Katzenbach and Smith 1993).

In Conclusion, the two teamwork parameters, meaningful purpose and specific goals and sense of mutual accountability has a positive and significant relationship with organizational performance under non financial performance measures.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

The research study findings and results are discussed in this chapter. All discussions, conclusions and recommendations are made based on only the key research findings and results.

The main objective of this study was to assess and identify the effect of teamwork on the organizational performance of Ethiopian health institutions taking Tikur Anbesa Specialized hospital as case organizations. Therefore, the researcher has summarized the findings and has given conclusions and recommendation based on the information collected and analyzed.

#### 5.2 Summary of Findings

Summary of Key findings of this study are presented objectively as follows.

- ✚ 114 responses which are represented by 90% response rate were valid for analysis.
- ✚ Respondents were from 21 to 50 years of age and were composed of female staff which constitutes 58.8 and the 41.2% are male staff.
- ✚ The majority of respondents 81(71.1%) were first degree holders and respondents from all healthcare professionals were included. 50(43.9%) of the respondents are below 5 years of working experience in TASH, and the remaining were more than 5 years of experience.
- ✚ Out of the total 114 healthcare professionals, the majority 88(77.2%) are team members while the rest 26(22.8%) are team leaders at TASH.
- ✚ From the communication teamwork dimension, communication is measured using five components placed in a Likert scale in the questionnaire and then evaluated to have been

practiced to the level  $M=3.21$  and this result shows that there is a low degree of association.

- ✦ From the adequate level of skills, it is measured using five components placed in a Likert scale in the questionnaire and then evaluated to have been practiced to the level  $M=3.38$  and this result shows that there is a low degree of association.
- ✦ From the meaningful purpose and specific goals, it is evaluated to have been practiced to the level  $M=3.11$  and this result shows that there is a low degree of association.
- ✦ From the clear working approach, it is evaluated to have been practiced to the level  $M=2.92$  and this result shows that there is a low degree of association.
- ✦ From the sense of mutual accountability, it is evaluated to have been practiced to the level  $M=3.16$  and this result shows that there is a low degree of association.
- ✦ The non-financial organizational performance level of TASH is computed to the level  $M=3.49$ , which is a moderate level of performance.
- ✦ The sense of mutual accountability parameter is the parameter with strong relationships with organizational performance indicated by  $r=0.560$ , followed by the clear working approach parameter with  $r=0.533$  and. The other teamwork dimensions namely communication, and adequate level of skills have also a significant relationship with organizational performance.

From the **Correlation Analysis Matrix**, it is found that all the five teamwork dimensions communication, adequate levels of complementary skills, meaningful purpose and Specific goals, clear working approach and sense of mutual accountability are found to have positive correlation with the TASH organizational performance among team of health professionals. The sense of mutual responsibility is the most related to performance with  $r=0.560$  followed by clear working approach dimension with  $r=0.533$  meaningful purpose

and specific goals with an  $r=0.503$ . The communication and adequate level of skills parameters are found to be associated with organizational performance with low level of association with  $r=0.116$  and  $r=0.2342$  respectively.

- ✚ **Multiple Regression Analysis** (Model summary) was conducted to further assess the effect of teamwork on organizational performance of TASH. According to the regression result, the coefficient of determination, i.e. R Square, is computed to be  $0.409=40.9\%$ . That implies 40.9% of the variation of performance can be predicted by the independent variables.
- ✚ The F-ratio in the **ANOVA** table shows that the independent variables significantly predict the dependent variable,  $F = 14.963$ ,  $P=0.00$  (i.e., the regression model is a good fit of the data at  $p < 0.01$ ). A high beta value and a small p value ( $< 0.05$ ) indicate the predictor variable has made a significant statistical contribution to the model since the p-value for F-Statistics (0.000) is less than the significance level 0.05.
- ✚ **Coefficients** also indicates that the three teamwork parameters, meaningful purpose and specific goals, communication and sense of mutual accountability has a positive and significant relationship with organizational performance under non financial performance measures with p value of 0.026, 0.006 and 0.003 respectively. But working approach and adequate level of skills had no significant effect on organizational performance of TASH with their p value 0.05, 0.103 and 0.667 respectively which is greater than 0.05.
- ✚ **Hypothesis testing** from the regression analysis tables revealed that Communication has a negative and significant relationship to organizational performance with Beta = -0.269, at 95% confidence level ( $p < 0.05$ ). Adequate level of skill has a negative relationship to organizational performance with beta value of Beta=-0.043, at a confidence interval of ( $P > 0.05$ ). Meaningful purpose and specific goals have a positive and significant relationship to Organizational Performance of TASH with Beta = 0.280 at 95% confidence level ( $p < 0.05$ , P-value=0.026). Clear working approach have a positive and

significant relationship to organizational performance of TASH using non-financial performance measures with Beta = 0.217, at 95% confidence level ( $p > 0.05$ , P-value=0.103). Sense of mutual accountability have a positive and significant relationship to organizational performance of TASH using non-financial performance measures with Beta = 0.346, at 95% confidence level ( $p < 0.05$ , P-value=0.003).

### **5.3 Conclusion**

Based on the research objectives, conclusions are drawn in relation to the teamwork components and their impact on performance of the organization. In this study, teamwork performance measured using five variables namely communication and information flow, adequate level of skills and knowledge, meaningful purpose and specific goals, adequate working approach and sense of mutual accountability. Following the Katzenbach and Smith 1993 team performance model multiple regression analysis done using SPSS version 23 including correlation analysis, F-ratio in ANOVA, coefficient analysis and finally hypotheses test and interpretation.

Based on the findings, this study concludes that teamwork has a positive relationship with organizational performance. The study finds out a moderate teamwork practice among TASH health professionals. However, despite the accuracy and validity of the survey data and analysis, two of the measurement variables for teamwork under this study, i.e., communication and information and complementary skill and knowledge have negative relation to the dependent variable, organizational performance. This is inconsistent with other empirical studies undertaken in the field. Unlike the former two, the other variables including clear purpose and goal, common working approach, and sense of mutual accountability have positive relation to the dependent variable, organizational performance.

Particularly, the practice of communications and information flow found at lower level in the TASH health professional teams. This implies that making frequent communications and easier information flow is yet practiced in better ways. Discussions within the team are not open and interactive as expected to be and there seems a gap in communicating feedbacks. Also, the result shows that the messages communicated during any type of team discussions are not relevant and reliable as it should have to be in helping teams perform better. Hence, the absence of adequate and easy communication and flow of ideas makes the communication practice to have a significant but negative relationship with organizational performance in TASH.

Similarly, the study reveals that the presence of lower level of adequate and necessary categories of skills practices within the teams though better degree compared to the practice of communication. Further to this, the practice of team and team members, individually or collectively, to help each other to learn and develop skills is found at a lower level. The result also indicates that the presence of adequate level of skills in helping for team to perform better is lower so does the effectiveness and usage of resources of training and development programme.

Contrarily, the practice of having meaningful and specific purpose among the teams in TASH health professional is moderate compared to organizational strategy. The study concludes, a moderate level of practice of respondents to understand and articulate the purpose of the team having clear, simple, measurable and flexible purposes leads to a moderate practice of making team goals achievable and measurable in TASH.

Correspondingly, clear working approach is practiced at moderate level by teams of TASH health professional. Having concrete, clear, understandable and agreeable working approach enable them achieve team objectives. Equally important, the study find that a moderate practice of contributing equivalent amount of work when framing working approach with moderately efficient time and resources use, innovations and problem-solving approach to accomplish teamwork.

Finally, the study finds a moderate practice of mutual sense of accountability within the teams of TASH health professionals. Every team member, individually or jointly, have moderate sense of accountability for team's purpose, goals, approach, and work-products which contribute to greater team performance in TASH. It can also be concluded that team members have moderate sense of "only the team can fail" that leads to a moderate practice of regular monitoring and evaluation on their status and way forward.

#### **5.4 Recommendations**

The results of the study prove that teamwork is one of the key influential factors determining the success and effectiveness of organizational performance in TASH health professional teams. Empirically, effectiveness of an organization is directly or indirectly related to performance of the organization done either individually or in teams. Seeing organizations in enhancing teamwork and performance to be effective in achieving their organizational goals is common practice since old days.

Teamwork and performance areas of any organizations are the focus of managers because both are related to achieving organizational strategy. As teamwork and organizational performance detrimental in health sector organizations to finally achieve organizational goals, the study recommends the following points.

#### **5.4.1 Recommendations to TASH**

The following recommendations are made based on the summary of findings and conclusion

- ✉ While a comprehensive study is necessary to increase teamwork effectiveness for enhanced organizational performance, this study recommends the Tikur Anbesa Specialized Hospital should improve the communication and information flows among teams of its health professionals. Besides, TASH would strongly work hard to increase the skills and ensure knowledge adequacy of the health professionals for better teamwork and organizational performance. Since healthcare jobs are performed through teamwork, the TASH needs to focus on teamwork and recognize good performing teams so as to get better teamwork outcome.
- ✉ One of the dimensions with strong practice found in this study is the presence of strong sense of mutual accountability within the teams of TASH health professionals. The research recommends strengthening this good practice to be more abundant in the organization for enhanced organizational performance.
- ✉ TASH would also increase the current moderate level of practice of meaningful purpose and specific goals to the highest level of team members' participation and belongingness to the team's purpose and specific goals. While encouraging, the research recommends that the practice of clear working approach by teams of TASH health professional would further be strengthened through vibrant participation and transparency of all members before assuming work.



#### 5.4.2 Recommendations for further studies

The following are some of the recommendations for future studies:

- ✉ This study was done on the teamwork effect on organizational performance quantitatively taking the perception TASH health professionals team members and team leaders.
- ✉ A more rigorous study can be done by integrating another method such as observational or any qualitative methodology.
- ✉ The research was done based on Katzenbach and Smith 1993 model of teamwork performance, whereas further research on the same organization can be done by using other models of teamwork performance.
- ✉ Direct study on the effect of teamwork on the financial performance can be done as this one is limited to the non-financial performance of the organization.
- ✉ This study can be more specifically on teams such as surgical teams, treatment teams, and prevention teams and so on to clearly identify the relationship between specific teamwork with performance of the organization.
- ✉ This study can also be done on other measures of organizational performance parameters other than balanced score card.
- ✉ As indicated in the result of this study the two variables namely communication & information flow and adequate level of skill & knowledge negatively impacted organizational performance under study this is contradictory to the theoretical foundation and findings to other empirical studies, hence a further study on this variables highly recommended

## References

- Aftab Ahmed, Mangi, Hakim Ali Kanasro, et al 2001: Teamwork: A key to organizational Success, The Government: Research Journal of Political Science Supplementary Edition Vol. III,
- Amaratunga, D., & Baldry, D. (2002). Moving from performance measurement to performance management. *Facilities* 20(5), 217-223.
- Anne Delarue, Geert Van Hootegem, et al: Teamworking and organizational performance: A review of survey based research, *International Journal of Management Reviews* (2008) Volume 10 Issue 2 pp. 127–148 127 doi: 10.1111/j.1468-2370.2007.00227.x
- Bosco, C. (2004, February). Health policy and IECPCP. In I. Oandasan, D. D'Amour, M. Zwarenstein, K. Barker, M. Purden, M. Beaulieu, et al. *Interdisciplinary education for collaborative patient-centred practice: Research and findings report*. Ottawa, ON: Health Canada.
- Canada Health Canada. (1997). *Supporting self-care: The contribution of nurses and physicians: An explanatory study*. Ottawa, ON: Health Canada
- Cascio, W. F. (2006). *Managing Human Resources: Productivity, Quality of Life, Profits*. McGraw-Hill Irwin
- Chenhall, R.H. (2005). Integrative Strategic Performance Measurement System, Strategic Alignment of Manufacturing, Learning and Strategic outcomes: an exploratory stud *Accounting, Organizations and Society*, 30(5), 395-422
- Cohen, S. G., & Bailey, D. E. (1997). What makes teams work: Group effectiveness research from the shop floor to the executive suite. *Journal of Management*, 23(3), 239-290.
- Daft, R.L.(2000). *Organization Theory and Design*. (7th ed.) South-Western College Publishing, Thomson Learning. U.S.A.
- Dave Clements and et al 2007. Effective teamwork in Healthcare: Research and reality. *Healthcare Papers* 7(SP) January 2007: 26-34.doi:10.12927/hcpap.2013.18669
- Dennis Andersson, Amy Rankin, Darryl Diptee. Approaches to team performance assessment: a comparison of self-assessment reports and behavioral observer scales. *Cogn Tech Work* (2017) 19:517–528 DOI 10.1007/s10111-017-0428-0
- Doyle, Peter (1994). Setting Business Objectives and Measuring Performance. *European Management Journal*, Vol.12, No.2: 123-132.
- Ghalayini, A.M. and Noble,J.S. (1996), “ The Changing Basis of Performance Measurement”, *International Journal of Operations Production Management*, Vol.16No.8,p.53-80.

Halar Sheikh, Adil Hussain Soomro, Aamir Magsi, Humera Siddiqi. Determinants of Team Performance. Research issues in social sciences 1(2016) 33-46, www.sienajournals.com

Hamada Fawzy, Thabet Abuzis, et al: Impact of teamwork effectiveness on organizational performance Vis-à-vis Role of organizational support and team leader's Readiness: A study of Saudi Arabian Government Departments Work Teams, Journal of Engineering and Applied sciences 12(8): 2229-2237,2017, ISSN: 1816-949X Medwell Journals,2017

Health Council of Canada. (2005). Health care renewal in Canada: Accelerating change. Toronto, ON: Health Council of Canada

Hwang, M. I. (2018). Relationship between Teamwork and Team Performance: Experiences from an ERPsim Competition. Journal of Information Systems Education, 29(3), 157-168.

Indrajith and Pravitha N R. A study on factors influencing team effectiveness in a resort environment. International journal of Scientific Research, Volume-6 | Issue-6 | June-2017 | ISSN No 2277 - 8179 | IF : 4.176 | IC Value : 78.46

Ichniowski, C., Kochan, T.A., Levine, D., Olson, C.and Strauss, G. (1996). What works at work: overview and assessment. Industrial Relations, 35, 299–333.

Institute of Medicine (2001). Crossing the chasm: A new health system for the 21st century. Washington DC; National Academy Press

Jeffrey Lawrence D'Silva and Seyedali Ahrari. Factors Influencing Team Effectiveness in Higher Education. Institute for Social Science Studies, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia

Jon R. Katzenbach and Douglas K. Smith Harvard Business Review, May/June 2020  
Katzenbach, Jon R.; Smith, Douglas K. The Wisdom of Teams : Creating the High-performance Organization. Harvard Business School Press. isbn10 | asin: 0875843670

Karen Mazzocco et al. Surgical team behaviors and patient outcomes. The American Journal of Surgery (2009) 197, 678–685

Kennerley, M., & Neely, A. D. (2002). "A Framework of the Factors Affecting the Evolution of Performance Measurement Systems. International Journal of Operations and Production Management, 22(11), 1222-1245

Kaplan, R.S. & Norton, D.P. (1992) "The balanced scorecard: measures that drive performance." Harvard Business Review, January-February 1992, 71-79.

Kinsey, Anne. (2019, January 31). Importance of Team Communication Skills. Small Business - Chron.com. Retrieved from <http://smallbusiness.chron.com/importance-team-communication-skills-3079.html>

Lepine JA, Piccolo RF, Jackson CL, Mathieu JE, Saul JR. A Meta-Analysis Of Teamwork Processes: Tests Of A Multidimensional Model And Relationships With Team Effectiveness Criteria. *Personnel Psychology*. 2008;61(2): 273–307.

Marks MA, Mathieu JE, Zaccaro SJ. A temporally based framework and taxonomy of team processes. *Academy of Management Review*. 2001 Jan;26(3): 356–76.

McQuerrey, Lisa. (2019, January 25). What Are the Benefits of Teamwork on Organization Effectiveness? *Small Business - Chron.com*. Retrieved from <http://smallbusiness.chron.com/benefits-teamwork-organization-effectiveness-78220.html>

Moullin, M. (2003). Defining performance measurement. *Perspectives on Performance*, 2(1), 3-15

Mustafa Zincirkiran, Abdurrahim Emhan, et al analysis of teamwork, organizational commitment and organizational performance, a study of health sector in turkey, *Asian Journal of Business and Management* (ISSN: 2321 - 2802) Volume 03 – Issue 02, April 2015 *Asian Online Journals* ([www.ajouronline.com](http://www.ajouronline.com)) 173

Nawaz, S. Mehmood, Dr. N. Ehsan. Factors Affecting Team Performance in Public Sector Organizations; A Quantitative Analysis. Presented in 3rd IEEE ICCSIT 2010 international conference, held in Chengdu, China from July 9-11

Neely, A.D., Marr, B., Adams, C., & Kapashi, N. (2001). Measuring eBusiness Performance” in “Business Performance Measurement: Theory and Practice, Neely, A. D. (ed), Cambridge University Press, Cambridge

Neely, A. D. (1998). *Beyond Balance: Three Key Roles for Measurement*. Business Intelligence Conference, London

Pina Tarricone and Joe Luca; *Successful teamwork: A case study*, Edith Cowan University, Perth, Australia

Richard L. Daft, *The Leadership Experience*, Fourth Edition, Thomson Higher Education 5191 Natorp Boulevard Mason, OH 45040 USA

Rousseau V, Aubé C, Savoie A. Teamwork behaviors: A review and an integration of frameworks. *Small Group Research*. 2006 Jan;37 (5): 540–70

Schaefer H.G., Helmreich R.L. & Scheidegger D. (1994) Human factors and safety in emergency medicine. *Resuscitation* 28, 221–225.

Shouvik Sanyal and Mohammed Wamique Hisam, The impact of teamwork on work performance of employees: a study of faculty members in Dhofar University, *IOSR Journal of Business and Management (IOSR-JBM)* e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 20, Issue 3. Ver. I (March. 2018), PP 15-22 [www.iosrjournals.org](http://www.iosrjournals.org) DOI: 10.9790/487X-2003011522

Sonal Agarwal, Theophilus Adjirackor, Impact of teamwork on organizational productivity in some selected basic schools in the Accra metropolitan assembly, European Journal of Business, Economics and Accountancy Vol. 4, No. 6, 2016 ISSN 2056-6018

Venkatraman,N.,&Ramanujam,V.(1986). Measurement of Business Performance in Strategy Research: a Comparison Approaches. Academy of Management Review,11,801-814.

Walid Al Salman and Zubair Hassan, Impact of effective teamwork on employee performance, international journal of accounting and business management Vol. 4 (No.1), April , 2016 ISSN: 2289-4519 [www.ftms.edu.my/journals/index.php/journals/ijabm](http://www.ftms.edu.my/journals/index.php/journals/ijabm).

Wu, M.C. & Chen, Y.H. (2014). A factor analysis on teamwork performance – an empirical study of inter-instituted collaboration. Eurasian Journal of Educational Research, 55, 37-54. <http://dx.doi.org/10.14689/ejer.2014.55.3>

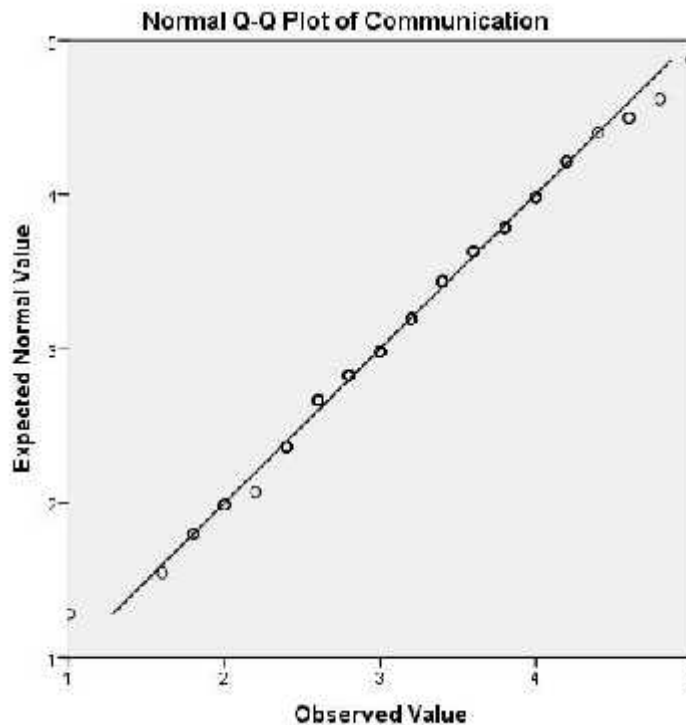
Xyrichis, Ream, Emma Andreas. Teamwork: a Concept Analysis 2008/02/01 Journal of advanced nursing DO - 10.1111/j.1365-2648.2007.04496.x

# Annexes

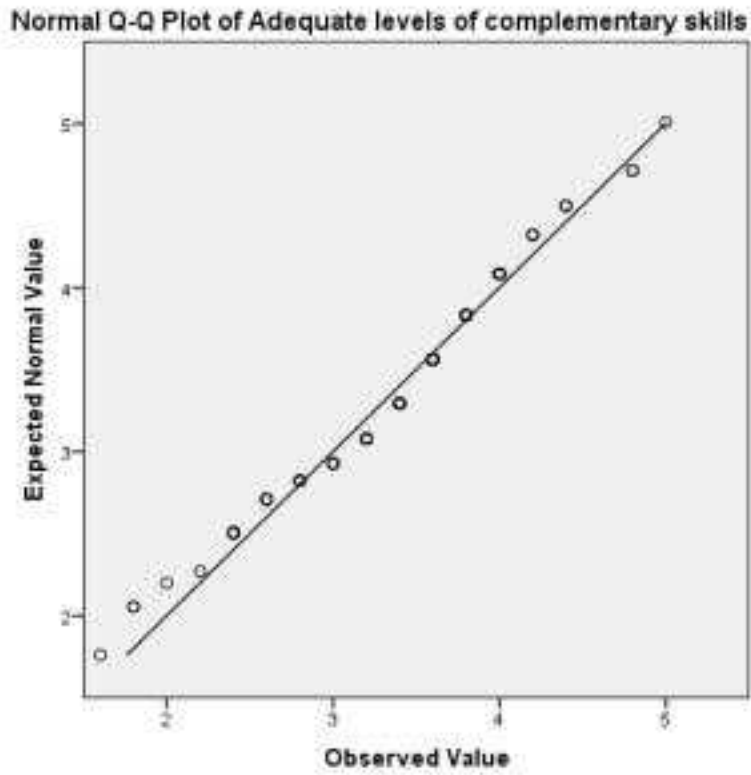
## Q-Q Plot for Normality Test

Q-Q Plot is one type of normality test used to check the distribution of response of the respondents before proceeding to multivariate regressions analysis. If the majority of the plots are near the straight line, then the distribution is approximately normal. Below are graphs of Q-Q plot for all five teamwork measuring variables and organizational performance. All showed that the distribution is normal to be put and analyzed through the regression analysis. The graphs are showed in annexes just for reference.

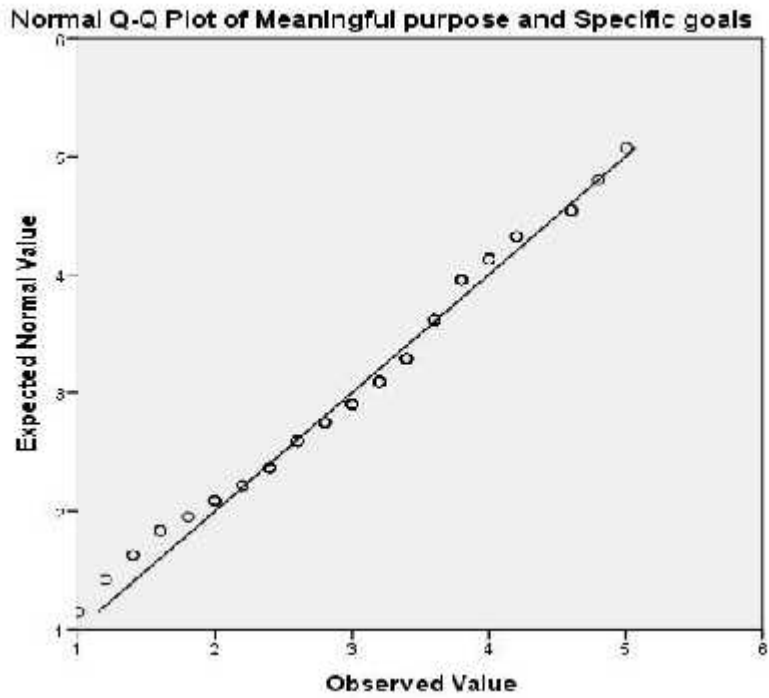
### Annex 1: Normal Q-Q plot of Communication



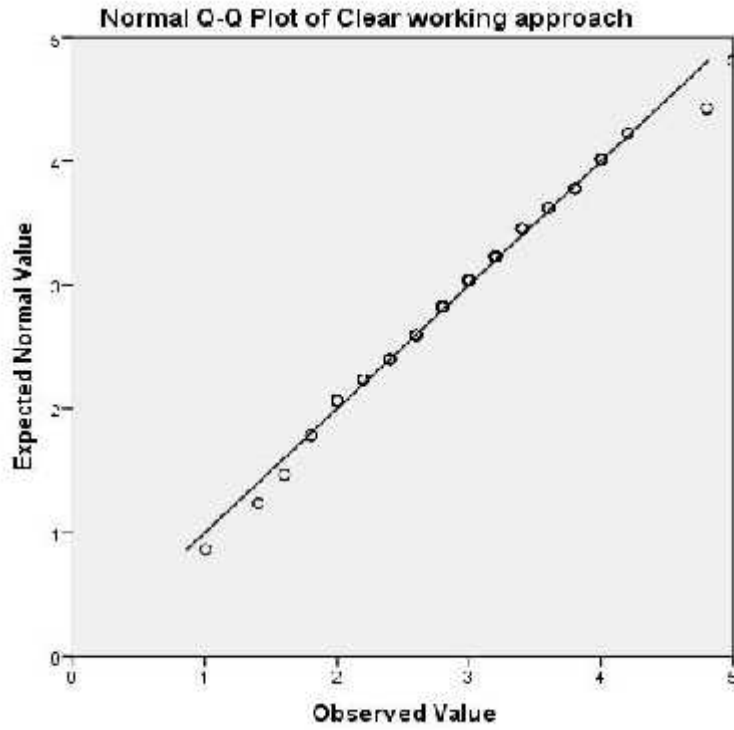
**Annex 2: Normal Q-Q plot of adequate levels of complementary skills**



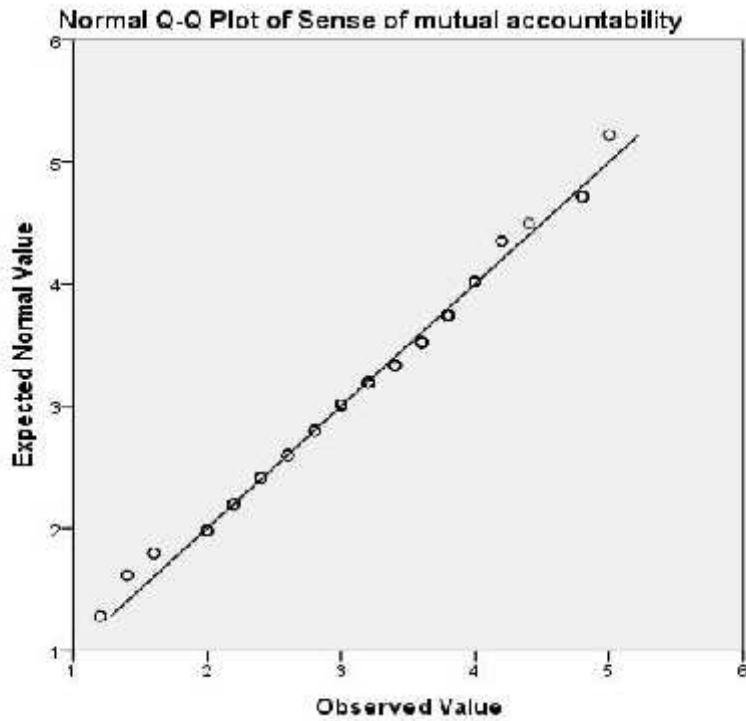
**Annex 3: Normal Q-Q plot of meaningful purpose and specific goals**



**Annex 4: Normal Q-Q plot of working approach**

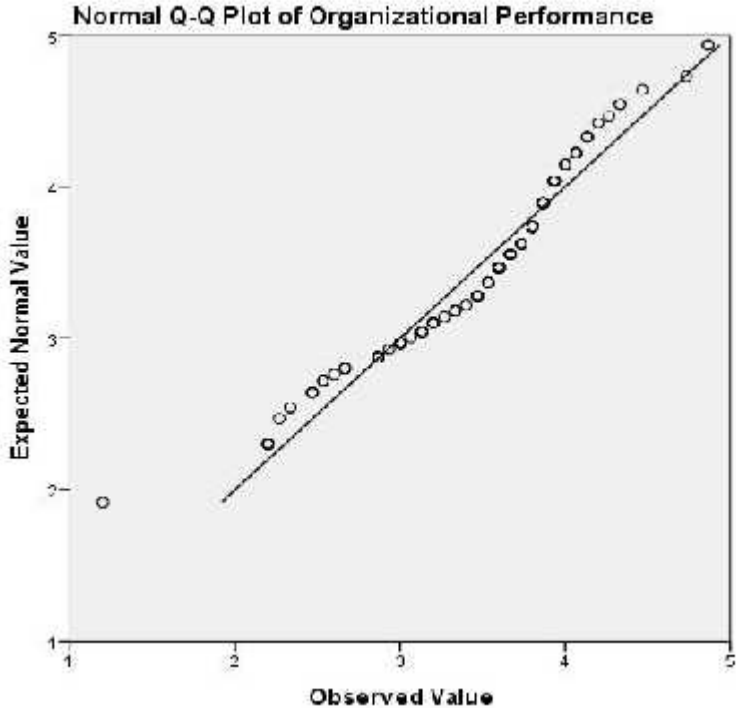


**Annex 5: Normal Q-Q plot of mutual accountability**





**Annex 6: Normal Q-Q plot of organizational performance**



**ST.MARRY'S UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**

**Questionnaire to be filled by team members of TASH**

**Dear Respondent:** I am a Master of Business Administration post graduate student at st, marry university school of graduate studies. This questionnaire is designed to collect relevant information for the research carried out on the topic “The effects of Teamwork on Organizational Performance in health care provider Organizations: the Case of the TASH”. The study is conducted for academic purpose that is for partial fulfillment of the requirements of the Master of Business Administration. The researcher assures you as your responses will be kept confidential.

The soundness and validity of findings highly depend on your honest and thoughtful responses. Therefore, I kindly request you to fill the questionnaire carefully and return at your earliest convenience. I thank you in advance for all the kind support and considerable time you spent filling the questionnaire.

In case you needed more clarification on any of the questions, please feel free to contact the researcher at mobile 0995200648 or email [xanxad83@gmail.com](mailto:xanxad83@gmail.com)

**Part 1: General Profile (Please put ( ) mark in the box that best describes you)**

- a. Age     21 to 30     31 to 40     41 to 50     51 to 60
- b. Gender         Male         Female
- c. Educational background     Diploma     first degree     postgraduate and above
- d. Department     Physician     Pharmacy     Nurse     Laboratory     Radiography
- e. Experience at TASH     <5 years     5 to 10 years     11 to 15 years     > 15 years
- f. Your role at the Team     Team member     Team Leader

**Part II: Teamwork performance determinants at TASH**

Please indicate the degree of your agreement/disagreement with the following statements associated with the five team basics of teamwork performance namely communication, complementary skills, meaningful purpose and specific goals, working approach and mutual accountability in the teams of TASH with their respective 5 indexes each. Please put ( ) on the alternative choice that best describes your view using the five Point Likert Scale shown under.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral or Not sure	Agree	Strongly Agree

**Teamwork determinants at TASH**

<b>Communication</b>	1	2	3	4	5
In TASH, a team member can easily and frequently communicate within team.					
Discussions within the team are open and interactive					
Feedbacks are communicated easily within team.					
The messages communicated during any type of team discussions are relevant and reliable.					
The presence of easy communication and flow of ideas leads to team performance.					
<b>Adequate levels of complementary skills</b>					
All three categories of skills (technical, interpersonal and conflict resolution skills) either actually or potentially represented across the membership within the team at TASH.					
Members, individually and collectively, are willing to spend the time to help themselves and others to learn and develop skills.					
The presence of adequate level of skills within our team helps to our team to perform better.					
Trainings given for team skill and knowledge development are effective					

and resources used are adequate.					
Team knowledge and skill sharing are relevant to the actual jobs and projects.					
<b>Meaningful purpose and Specific goals</b>					
The team purpose and goal within TASH is in line with the greater organizational purpose.					
All members understand and articulate purpose of the team in the same way and mention it in communications with other staffs.					
Team purpose and goals are clear, simple, and measurable. If not measurable, at least their achievement can be determined					
The team goals within TASH are flexible.					
The team goals given for the team to achieve are real and achievable.					
<b>Clear working approach</b>					
The working approach is concrete, clear, and really understood and agreed to by everybody and result in achievement of the objectives.					
The working approaches require all members to contribute equivalent amounts of real work.					
The approaches team uses in TASH provide for open interaction, fact-based problem solving, and results-based evaluation.					
The teamworking approaches used in TASH are efficient with regard to time and resources used.					
Adequate attention is given for innovation and problem solving in the teamworking approach.					
<b>Sense of mutual accountability</b>					
Every team member, individually and jointly, is accountable for the team's purpose, goals, approach, and work-products.					
Members are clear on what they are individually responsible for and what they are jointly responsible for as far as teamwork is concerned.					
There is a sense that "only the team can fail" within almost every member.					
Self reflection on any risen ideas within team is taken to improve the mutual accountability.					

There is regular monitoring and evaluation within teams to ensure where the team is and how team is doing.					
--	--	--	--	--	--

### Part III: Organizational Performance of TASH

Kindly indicate 1 (to a very little extent) to 5 (to a very great extent) to what extent the teamwork determinants affects the organizational performance of TASH Ethiopia.

1 = To a very little extent

2 = To a little extent

3 = To some extent

4 = To a considerable extent

5 = To a very great extent

### Organizational performance of TASH

<b>Customer Perspective</b>	1	2	3	4	5
Patients coming to get the service of the hospital are satisfied.					
In relative to other similar government hospitals, patients choose Black Lion hospital for its service.					
TASH has a reputable image and recognition before its customers.					
Customers treated in TASH are generally felt comfortable with the expenses incurred by the service.					
Patients are probably to choose TASH for their next medical or surgical treatment.					
<b>The Internal Process perspective</b>					
Patients are served within the standard time limit given by the hospital.					
There are variety of services and procedures given for patients at TASH.					
There is a standard of procedure for every department and measures are set to ensure jobs are done according to the standard procedure.					
Safety procedures are strictly followed by the hospital and monitored					

Regularly.					
There is a system to follow up patients after treatment and patients are happy about it.					
<b>The Learning and Growth perspective</b>					
I am improving productivity, quality, and customer satisfaction via the services I provide in the hospital.					
The staff turnover in TASH is low so that employees are staying longer.					
My staffs are competent enough and contribute for the success of the hospital.					
My service and contributions to the hospital is recognized and appreciated.					
There is adequate room for growth and development in TASH.					

