Assessment on the Quality of Ethiopian Higher Education Using the Perspectives of the Working Environment; The Case of Addis Ababa University Graduates

Leulsenaye Damena

A Thesis Submitted to Graduate Studies of School of Social Work in Partial Fulfillment of Requirements for Degree of Masters in Social Work (MSW)

ADDIS ABABA UNIVERSITY

COLLEGE OF SOCIAL SCIENCES

SCHOOL OF SOCIAL WORK

GRADUATE STUDIES

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This is to certify that the thesis prepared by **Leulsenaye Damena** entitled: **Assessment on the Quality of Ethiopian Higher Education Using the Perspectives of the Working Environment; The Case of Addis Ababa University Graduates** and submitted in partial fulfillment of the requirements for the Degree of Master of Social Work (MSW) complies with the regulation of the University and meets the accepted standards with respect to originality and quality.

Signed by the Examining Committee:

Examiner……………………………………Signature………………… Date………….

Examiner……………………………………Signature………………… Date………….

Advisor…………………………………….. Signature…………………Date…………..

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ABSTRACT

Ethiopia is investing a significant portion of its national income on education in general and higher education in particular. This study tried to assess the quality of Ethiopian higher education using the perspectives of the working environment. The objective of the study is to explore what employers have to say about their graduate employees, employees' perspectives towards their higher education experience and finally creating a connection between these point of views and quality of Ethiopian higher education. For the sake of its success, purposive sampling was implemented along with the use of interview and questionnaire for data collection. Questionnaires were distributed to employees so as to reach out many respondents and interviews were conducted with owners, general and human resource managers. The collected data were analyzed in a mixed research manner. So as to analyze the questionnaires, simple descriptive statics and results from the interviews were used to the support the discussion parts. The findings demonstrate that quality of education has a tight relationship with the working environment and Ethiopian higher education is failing in equipping graduates with essential skills like practical knowledge, entrepreneurship and business awareness. It is very recommended that Ethiopian higher education institutions should begin working with business and industrial sectors so as to make graduates ready for the outside world after school life.

CHAPTER ONE

1. INTRODUCTION

1.1. BACKGROUND

Education has a long history. Since the first day of human beings existence, people are learning how to deal with their day to day life. The primary aim of education is to sustain individual and societal improvement. This process contains both tangible and moral dimensions. Educational programs and policies play a pivotal role in these social and individual progresses. Social progress clearly indicates a general development in the community in terms of economic, social and cultural aspects (Mimar Türkkahraman, 2012).

Beyond its well-established socio-economic role, education also has a crucial socialization function through the shaping of personal and collective identities, the formation of responsible citizenship and the promotion of critical social participation, based on principles of respect for life, human dignity and cultural diversity. Promoting respect for diversity within a human rights-based approach can facilitate intercultural dialogue, help prevent conflict and protect the rights of marginalized groups, thus creating optimal conditions for achieving development goals (UNESCO, 2012).

When we look at Africa, Africa is the world's most youthful continent with some 200 million young people between ages 15 and 24. Finding productive jobs for young people is critical to the continent's future. An educated and skilled population is attractive to many employers and investors. Many employers across Africa have been critical of the lack of basic, technical and transferable skills of graduates. Strong education systems are key drivers of economic growth in African nations (AAI, 2015).

Social development can be reflected on the quality of the education and vice versa. A country with great set of educational system can easily achieve predetermined social and economic goals. For instance, modern education was introduced to Ethiopia nearly a century ago. However, the education and training offered during these long years had limited positive impact on the lives of the people and national development. The education offered has not enabled to solve the problems of farmers, pastoralist, and change the lives of the overwhelming majority of the people (MoE, 2002).

Different countries have their own structure of education. Structuring education as primary, secondary and higher education is the most common manner. Quality of education in each of these levels has various contexts. The way we can study quality of primary education cannot be used in other levels and vice versa. This particular study will specifically concentrate on higher education quality.

Throughout this paper quality of education is analyzed from the perspectives of the working environment. Employers and employees play the major role in this study. These perspectives from the working environment are used as a major parameter to study quality of Ethiopian higher education.

1.2. STATEMENT OF THE PROBLEM

Higher education in Ethiopia's context is defined as "education in the arts and sciences offered to undergraduates and graduate students who attend degree programmes." (Federal Negarit Gazeta, 2009). It is widely accepted that an increase in the production of graduates from higher education will benefit African countries and will contribute to higher economic growth and employment in the continent (ADEA, 2015).

Higher education in Ethiopia is elevating in tremendous rate and now we have more than 30 public universities. This has its own positive sides as Ethiopia is in need of trained force so as to achieve determined goals of the country. If we say enrollment is increasing along with the opened institutions, the next step is considering the quality of the given education because quality matters if we need the enrolled students to have ever lasting knowledge and life skills.

A paper written by UNICEF states that outcomes of quality education should encompass knowledge, skills and attitudes, and are linked to national goals for education and positive participation in society (UNESCO, 2000). Throughout the modern history of education governments were trying to come up with confident and peaceful generation. This was reflected on their educational system but their success was in question.

For instance, if we look at Ethiopia's higher education proclamation, its first objective is "to prepare knowledgeable, skilled, and attitudinally mature graduates in numbers with demand-based proportional balance of fields and disciplines so that the country shall become internationally competitive" (Federal Negarit Gazeta, 2009). This objective is to be supported by the members of the higher education system which includes academic staffs, students, policy makers, etc. in article 41 of this proclamation; quality of higher education is explored.

Specifically sub article 3 states that "The designing of courses and their delivery shall be such that the courses shall add to the knowledge and skills students already have, cultivate constructive professional values, and bring about attitudinal changes and development in students at the end of the courses."

Obviously, the objective of higher education is clearly stated and the success of education in achieving its targets can be measured using various methods. For example, the quality of educational input can be analyzed by assessing teachers' effectiveness, students' results and so on. But in Ethiopia, a country where everyone is focused on the enrollment rate, the outcomes of higher education (graduates, in this case) are not taken in to account to analyze education quality. While extending the number of higher education along with the enrollment rate, quality of it should be seen from different point of views.

Therefore, in this specific study, I tried to analyze the suitability of graduates in to the working environment and to see if it has any relationship with the quality of education. Perspectives from the working environment are used as measurement tools to analyze quality of Ethiopian higher education.

1.3. RESEARCH QUESTIONS

This study is conducted keeping the following questions in mind.

- What do employers think about their graduate employees' capacities in the working environment (employers' perspective)?
- What are the employees' perspectives towards the relationship between their current job and their educational background (employees' perspective)?
- What do both perspectives tell us about the quality of higher education in Ethiopia?

1.4. CONCEPTUAL FRAMEWORK

We understand how important education is in social development. This obviously means, anything that affects the effectiveness of education will directly or indirectly affect the process of building a strong society.

The major concern of this paper is to study quality of education by analyzing suitability of graduates into the employment market. This process of analysis covered study on the education system, employees’ and employers’ perspectives and education quality in terms of producing market oriented graduates.

Scrutinizing the connection between the quality of education and the fitness of graduates in the working environment will help us to see how much the education sector in Ethiopia is developing in terms of equipping students with a lifelong capacity to lead their life, to be competitive in the market and to have a positive impact in achieving development goals of the country.

1.5. OBJECTIVES OF THE STUDY

The general objective of this study is to analyze the quality of education in Ethiopia in connection with the adequacy of graduates into the working environment.

Specific objectives

- To explore if graduates are fitting into the working environment
- To determine if graduates’ educational background is helping them in their current jobs.
- To analyze the quality of education using employers’ and employees’ perspectives.

CHAPTER TWO

2. LITERATURE REVIEW

This part of the study focused on the different literatures regarding education and its quality. It has two parts namely empirical and theoretical reviews. The theoretical part will mainly focus on literatures that are concerned with the mere ideology of education. In this portion of the literature review theories regarding education, purpose of education and quality education will be assessed. And the second part which is the empirical review tried to assess what has been done in order to come up with a quality education. In this part, literatures about Ethiopian education in general and higher education in particular are analyzed in terms of the topic of this study. The literature review in this study is organized under specific titles.

2.1. EDUCATION

"Education is not a preparation for life, rather it is the living. Education is the process of living through a continuous reconstruction of experiences. It is the development of all those capacities in the individual which will enable him to control his environment and fulfill his possibilities."

John Dewey

Many literatures argue about the definition and purpose of education. For some, the word "education" is derived from two Latin words. The first word is EDUCARE, while the second is EDUCERE. The Latin word EDUCARE means to support and nurture the growth of, while the other Latin word EDUCERE means to draw out or to cause to come out. Education refers to the act of developing knowledge, skills or character of a child. It may also be defined as the act of bringing up, rearing, guiding or directing a child (Omona,1998) even in this definition of education disagreement arises as education is not only for a child. Relatedly, UNESCO (2006) viewed education as the process through which knowledge; skills, attitudes and values are imparted for the purpose of integrating the individual in a given society, or changing the values and norms of a society.

Over the years different authors gave education different meaning but they all agree on one thing, the necessity of education. According to United Nations, Education is important in eradicating poverty and hunger and in promoting sustained, inclusive and equitable economic growth and sustainable development. Contextually, according to education for all (EFA) report 2008, distribution of personal incomes in a society is very much affected by peoples' level of education. From this we can easily understand the effect of education in our day to day life.

2.2. TYPES OF EDUCATION

Ocit (1994) divides education into the following three categories:

a) Formal Education: This refers to the hierarchically structured, chronologically graded 'education system', running from primary school through the university and including, in addition to general academic studies, a variety of specialized programmes and institutions for full-time technical and professional training.

b) Informal education: This refers to the truly lifelong process whereby every individual acquires attitudes, values, skills and knowledge from daily experience and the educative influences and resources in his or her environment – from family and neighbors, from work and play, from the market place, the library, the mass media, and so on.

c) Non-formal education: This refers to any organized educational activity outside the established formal system whether operating separately or as an important feature of some broader activity that is intended to serve identifiable learning clienteles and learning objectives. Four characteristics can be associated with non-formal education: relevance to the needs of disadvantaged groups, concern with specific categories of person, a focus on clearly defined purposes, and flexibility in organization and methods.

2.3. PURPOSES OF EDUCATION

Purposes of education can be seen from different point of views. The one continuing purpose of education, since ancient times, has been to bring people to as full a realization as possible of what it is to be a human being. Other statements of educational purpose have also been widely accepted: to develop the intellect, to serve social needs, to contribute to the economy, to create an effective work force, to prepare students for a job or career, to promote a particular social or political system (W. Foshay,1991).

From a very special perspective, Dr. Martin Luther King Jr. says "the function of education is to teach one to think intensively and to think critically. But education which stops with efficiency may prove the greatest menace to society. The most dangerous criminal may be the man gifted with reason, but with no morals."

Depending on the types of education, Maxine Green (Shen, 2001) believed the purpose of formal education was for each student to gain multiple perspectives through common experiences with classmates. This will help students learn about democratic pluralism, life narrative and ongoing social change. She stated that informal education strengthens community and individual perspectives and provide multiple constructions of reality.

Some other intellectuals relate education with thinking. For instance, Seymour Sarason (Hargreaves, 2001) states that the overarching purpose of schooling is to stimulate, capitalize on, and sustain the kind of motivation, intellectual curiosity, awe, and wonder that person possess when they begin schooling. He believed that the overarching purpose of education was to free, not indoctrinate, minds, to produce questioners and not narrow or mindless conformists, to hammer the morality under binding freedom, not a morality that closed minds to new or alternative ideas.

We can mention a lot of other personalities that discuss the purpose of education in general. But the loop hole behind those discussions is how to measure its success with in their explanation of purpose of education. For instance, if we say the purpose education is to broaden someone's way of thinking, how do we know it is achieving this particular purpose? Here comes the concept of quality education and how to measure it.

2.4. QUALITY OF EDUCATION

According to UNICEF (2000), quality education encompass the following matters,

1. Learners who are healthy, well-nourished and ready to participate and learn, and supported in learning by their families and communities;

2. Environments that are healthy, safe, protective and gender-sensitive, and provide adequate resources and facilities;

3. Content that is reflected in relevant curricula and materials for the acquisition of basic skills, especially in the areas of literacy, numeracy and skills for life, and knowledge in such areas as gender, health, nutrition, HIV/AIDS prevention and peace;

4. Processes through which trained teachers use child-centered teaching approaches in well-managed classrooms and schools and skillful assessment to facilitate learning and reduce disparities;

5. Outcomes that encompass knowledge, skills and attitudes, and are linked to national goals for education and positive participation in society.

Using the above expression as a general framework we can narrow the definition down to a point where this paper is concerned. According to Su Zhang and Na An (2010), quality education depend on the objective things which refers to the school and academic construction, the subjective things which refer to the teachers and other various of ways of teaching forms, and the students who are educated must accord with the moral demands from society and the requirements of Human Resources from enterprises.

There are educators whose conceptualization of quality is grounded in a competency approach, where quality is the effectiveness of the degree to which objectives are met or described levels of competence are achieved. In this definition, quality is achieved when the educated personnel are competent in the outside world and have the power of survival after school life (Adams and Standfort, 1992).

There are scholars who have described the quality of education in terms of the extent to which, and the manner in which aims and functions of education are achieved. Aims are the anticipated effects of learning and functions refer to what schools are expected to accomplish. For instance, in developing countries the whole point of investing in education is producing competent and skillful individuals that can help the country to overcome challenges of poverty, inequality, governance problems, unemployment etc. (Vedder, 1994).

In most literatures, we can find what it means by quality of education from various perspectives. The very challenging matter that comes along with the idea of quality education is its measurement. Knowing if a certain institution is giving a quality education is pretty much impossible as quality education has no universal framework (Daniel and Nobuhide, 2010).

2.5. MEASUREMENT OF EDCUATION QUALITY

Quality of education, especially at the lower level, is often estimated by looking at pupil/teacher ratios, on the basis that the more pupils there are per teacher, the less each pupil gets quality education. But quality of education goes beyond that. Other factors such as class size, textbook availability and access to basic services can affect learning (UNESCO, 2012). However, quality of education still goes beyond that. As the level goes up, the way we can measure the quality of education gets complicated.

A study conducted in US shows that customers in business and industry may soon force higher education institutions to take a long and hard look at the "product" they are producing. The Society for Human Resource Management conducted interviews with various human resource personnel and senior executives and reported astounding results. The primary finding showed that the United States is not doing enough, fast enough to prepare for the economic future. Students entering the workforce were described as woefully ill-prepared and if institutions of higher learning are not producing students capable of assuming job responsibilities in industry and business, then these industries and businesses will not continue to hire their graduates (Mckinsey on Society, 2012).

Tertiary education is central to economic and political development, and vital to competitiveness in an increasingly globalizing knowledge society. In the case of Africa, tertiary education plays a critical capacity building and professional training role in support of all the Millennium Development Goals (MDGs). Recent research findings indicate that expanding tertiary education may promote faster technological catch up and improve a country's ability to maximize its economic output (Bloom, Canning, and Chan 2006). Africa has maintained its public investment in higher education over the last 15 years, allocating approximately 0.78 percent of its gross domestic product (GDP) and around 20 percent of its current public expenditure on education to this sector (WB, 2005). A new range of competences, such as adaptability, team work, communication skills, and the motivation for continual learning, have become critical. Thus, tertiary institutions are challenged to adjust their program structures, curricula, teaching and learning methods to adapt to these new demands (P. Materu, 2007).

After knowing all these facts and spending all these resources on education, according to the national academies press (2012), measuring the effectiveness of higher education is difficult for the following reasons:

- Institutions of higher education are multi-product firms (that is, they produce multiple kinds of services);
- Inputs and outputs of the productive process are heterogeneous, involve nonmarket variables, and are subject to quality variation and temporal change; and
- Measurement is impeded by gaps in needed data.

However, in this particular study, I attempted to narrow down the challenges of measuring the quality of higher education in to measuring the effectiveness of higher education by studying the products of higher education in the working environment.

2.6.EDUCATION AND EMPLOYMENT

2.6.1. THEORETICAL PERSPECTIVES

Along the years different theories and postulations on the relationship between education and employment were formulated. Based on the assumption of homogeneity of labor units, the classical economists postulated that wage rates are the equilibrating mechanisms between demand for and supply of labor. To them the competitive markets produce right signals at the right time and the supply and demand factors adjust and re-adjust according to market signals to determine the equilibrium wage rates. In conformity with their assumption of full employment, they considered that the primary function of labor markets was to ascertain the price of labor services at a given point in time. Unemployment, according to the classicals, is just a temporary aberration resulting from the imperfect functioning of the markets and it cannot continue to exist in the long-run. Therefore, to the classicals employment was not an area of primary focus of their analysis (N. V. Varghese, 1988).

The neo-classicals did not totally subscribe to the classical version of the labor market process. Stemming from the assumptions of a linear model of economic development and marginal productivity theory of distribution, the neo-classical economists, too, considered that the primary function of labor markets was to allocate and rationally adjust labor skills and labor demands, so as to establish equilibrium prices for labor services. However, many of them did not subscribe to the classical assumption of homogeneity of labor units. Moreover, man y postulations in the neo-classical tradition admitted, and to some extent incorporated, the dualistic nature of the labor markets in their analysis. This dualism was sometimes interpreted in terms of cultural factors (Bocke: 1953) and at other times in terms of technological factors (Higgins: 1959). However, within the neo-classical tradition, perhaps, the most popular and highly acclaimed model, focusing on the educational aspects of employment, is the human capital model.

The human capital model does not assume that the labor units are homogenous. On the other hand, non-homogenous labor units form one of the essential elements of their analysis. They hypothesized that individuals differ in terms of the type and levels of skills they possess. Moreover, their major contribution lies in providing a reasonable explanation for the differential skills and associated wage differentials. According to this model, differential skills are directly related to the differential levels of education attained by the individuals. And the levels of education attained directly correspond to the amounts invested in education. Human capitalists were explicit in their explanation regarding the skill-inculcating role of education. All of them (Schultz: 1961; Becker: 1964; Mincer: 1974, etc.) argued that education develops cognitive skills which improve the efficiency and thereby the productivity of individuals, i.e. better educated individuals contributes more to the national income. Based on the marginal productivity theory of distribution, they argued, and rationalized the higher monetary rewards to the educated than to the less or uneducated. According to this postulation, the educational level of an individual plays a crucial role in determining his job and income. Thus the relationship between education and work is established through the skills developed through education.

Another inference within the neo-classical tradition belittles the skill-development role of education. Filtering (Arrow: 1973) and Signalling (Spence: 1973) postulates attribute totally different role to education. Accordingly, education is a selection process whereby more talented and hence more productive individuals are identified. They do not subscribe to the view that education contributes to skill development. To them, talents and skills are inherent in individuals and those who are more talented get higher levels of education, at the same or even at less cost, than those who are less talented. What employers are interested in and looking for in the labor market are people with more potential ability. Degree or diploma possessed by individuals serves as a proxy or signal for potential ability. In the absence of such a signaling or screening device like education there can be a possibility of misallocation of the talented; thereby making a distortion in the labor market. Even when other screening mechanisms are available employers may use the diploma to screen out individuals, provided it is cheaper than any other device. Moreover, using educational credentials is one of the easiest ways of identifying potential talents. Employees, too, like to be identified because if they are identified they will be given wages to commensurate their abilities. Therefore, there will be continuing demand for education from the domain of individuals. According to this hypothesis, education has a different role from enhancing skills and productivity of individuals. The link between education and job is through the capability of the educational system to identify potentially productive prospective employees.

Another model which cannot be strictly categorized either in the neo-classical or radical tradition is the job-competition model (Thurow: 1972; 1974 and 1975). The job competition model ascertains that supply factors do not play a very significant role in the labor market process. This postulation debunks the concept of the labor market as an institution mediating between labor skills and labor demands and argues that labor skills in their final form do not exist in the labor market. What is important and what the employers are looking for in the labor market is the "trainability" of the prospective employees. The employer's attempt is to reduce the training costs of their employees. Therefore, those who can be trained easily and at a lower cost will be hired first. But in a complex market situation employers do not have any reliable mechanism to assess the exact training costs of specific individuals. Under such situations education is used as one of the background characteristics and a proxy variable for hiring prospective employees. Here again, the underlying assumption is that the better educated pick up skills rather quickly and thereby training costs will be less for them. In this sense, education is important for purposes of job entry. However, actual wages will be determined on the basis of productivity which is directly related to the skills developed during on-the-job training. The quicker you pick up skills the higher the productivity.

There are three main components of ‘human capital’ — early ability (whether acquired or innate); qualifications and knowledge acquired through formal education; and skills, competencies and expertise acquired through training on the job (Fiscal Studies, 1999). As a center of concentration of this study let’s focus on the formal education.

Throughout the investment of human capital, an individual’s acquired knowledge and skills can easily transfer to certain goods and services (Romer, 1990). Considering that accumulation of knowledge and skills takes charge of important role for that of human capital, there is a widespread belief that learning is the core factor to increase the human capital. In other words, learning is an important component to obtain much knowledge and skills through lots of acquisition ways including relationship between the individual and the others (Sleezer, Conti, Nolan, 2003). Currently, it is acceptable that the conceptual foundation of one’s human capital is based on ‘something like knowledge and skills’ acquired by an individual’s learning activities (OECD, 2009).

The acquired knowledge and skills through education (learning activities) have a significant impact in different parts of our lives. We can categorize these impacts in to three depending on their scale; Individual, organizational and social impacts. In the perspective of individual in the internal labor market, most of researchers refer to the possibility of increasing individual income, resulting from the individual productivity. By the increase of productivity in the workplace, the high-productive individual is recognized as the worker with much possibility to move to higher level in the internal market (Sicherman, 1991; Galor, 1990). On the internalized human capital, an individual easily holds the possibility to access job related information with high level of human capital, and thereafter he/she can easily obtain the occupational chances compared to otherwise.

With respect to organization, different literatures suggest that the potential of human capital is closely linked to core competences and competitiveness of organization. Similar to this perspective, individual human capital can affect organizational human capital such as ‘collective competences, organizational routines, company culture and relational capital’ as well.

Finally, the social perspective of human capital is the composition of both individual and organizational perspective. Mcmahon (1998) depicts the possibility of human capital for ‘democracy, human rights, and political stability’ on common consciousness of social constituents. According to Beach (2009), human capital can increase social consciousness of constituents within community. Consequently, the link between human capital and social consciousness is based on a close inter-relationship resulting in sociopolitical development (Alexander, 1996; Grubb & Lazerson, 2004; Sen, 1999)

In many countries, since the 1980s, there has been increasing pressure on higher education to contribute directly to national economic regeneration and growth. Increasingly, national and international assessments of the role and purposes of education indicate a need for higher education to contribute significantly to ‘meeting the needs of the economy’, not least to ensure future competitiveness (Ball, 1990)

A degree may once have been a passport into graduate employment: it was indicative of a level of knowledge and intellectual ability. However, as a result of organizational changes and the expansion in the numbers of graduates, this is no longer the case. Although graduate jobs are expanding, so is the supply of graduates. In addition, many employers are also looking for various types of experience. Employers and their representatives consistently say that, to succeed at work, most people in future must develop a range of personal and intellectual attributes beyond those traditionally made explicit in programmes of study in higher education institutions (L. Harvey, 2000).

When we look at the continent of Africa, a study by British Council first defines employability as the possession of relevant knowledge, skills and other attributes that facilitate the gaining and maintaining of worthwhile employment and explains the dissatisfaction of employers “There is widespread concern about the work readiness of graduates. While employers are generally satisfied with the disciplinary knowledge of students, they perceive significant gaps in their IT skills, personal qualities (e.g. reliability) and transferable skills (e.g. team working and problem solving).”

2.6.2. EMPIRICAL PERSPECTIVES

Human resource development is one of the necessary conditions for all kinds of growth-social, political, cultural, or economic (Harbison and Myers, 1964). Various studies in different parts of the world regarding human capital agree on one thing; the importance of investing on education and human capital development. For instance, recent experiences in East Asia showed the vitality of skilled labor force in fast growing economies (Wubet Kifle, 2006).

Forty years ago, Ghana and the Republic of Korea had virtually the same income per capita. Estimates of Gross National Income per capita at current Purchasing Power Parity (PPP) put Korea’s at about sixteen times higher than that of Ghana. Some reckon that half of the difference is due to Korea’s success in acquiring and using knowledge (World Bank, 2009). Indeed, the state of underdevelopment of many countries in Africa is not only due to lack of capital but more importantly because they lack adequate knowledge and skills to enhance productivity and increase national output. Many African countries are endowed with different kinds of natural resources which could be exploited to turn the fortunes of these countries around (William Bah-Boating, 2013).

Being concerned with the impacts of human capital, so as to exhaust the fruits of human capital, governments spend a significant portion of their national income on education. Considering the initiation of this paper, let’s concentrate on higher education. Around the world, higher education institutions are expected to fulfill multiple missions including the creation of knowledge, improving equity, and responding to student needs- and to do so more efficiently. The entire activities and missions in any higher education system (from teachers’ salaries to library facilities, from computers to a physical building, and so on) require costly resources.

For instance in Ethiopia, the government is working extensively to expand the higher education. To put this empirically, both in public and private institutions, the undergraduate enrollment rate have increased from 447,693 in 2010/11 to 729,028 in 2014/15. In the post graduate program both in public and private institutions, the number of graduate students has increased from 13,881 in the academic years of 2010/11 to 25,797 in the years of 2012/13. So as to attain such results Ethiopia had to allocate 40% of recurrent and capital budget (Mulatu Dea, 2016).

Table 1: Long term trend in Undergraduate Enrolment in Government and Nongovernment institutions

	Male	Female	Total
1996 E.C. (2003-2004)	44657	11415	56,072
1997 E.C. (2004-2005)	105013	33146	138,159
1998 E.C. (2005-2006)	130835	43066	173,901
1999 E.C. (2006-2007)	150530	52869	203,399
2000 E.C. (2007-2008)	199684	63317	263,001
2001 E.C. (2008-2009)	219300	89792	309,092
2002 E.C. (2009-2010)	286758	133629	420,387
2003 E.C. (2010-2011)	326769	120924	447,693
2004 E.C. (2011-2012)	355006	139104	494,110
2005 E.C. (2012-2013)	387707	166141	553,848
2006 E.C. (2013-2014)	413556	180018	593,574
2007 E.C. (2014-2015)	475971	253057	729,028

Source: Education statistics, Ministry of education

2.7.EDUCATION IN ETHIOPIA

Modern education was introduced to Ethiopia nearly a century ago. However, the education and training offered during these long years had limited positive impact on the lives of the people and national development. The education offered has not enabled to solve the problems of farmers, pastoralist, and change the lives of the over whelming majority of the people (MoE, 2002).

As the most concern of this study, when we look at the higher education of Ethiopia, higher education was initiated only in 1950 with the founding of the University College of Addis Ababa. As per the study of World Bank, This University and other subsequent higher education institutions strived, with considerable early success, to meet international standards. But in recent years, Ethiopia's higher education system found itself regimented in its management, conservative in its intellectual orientation, limited in its autonomy, short of experienced doctorates among academic staff, concerned about declining educational quality, weak in its research output, and poorly connected with the intellectual currents of the international higher education community. When we look at the enrollment rate, during the period 1974 to 1991 the development in the Ethiopian higher education was very slow. For instance the gross enrolment ratio (GER) for higher education that was about 0.2% by the year 1970 increased only to 0.7% after twenty five years in 1995 (World Bank, 2003).

The 1991 change of government opened a new chapter in the history of the country, and consequently in the development of its higher education. The Transitional Government of Ethiopia (TGE) identified education as one area of priority and in 1994 set up a comprehensive education and training policy (ETP). The policy aimed at improving the overall state of education at all levels and ensuring that education makes the required contribution in the country's development. By applying different set of education programs, Total enrollment has increased from 42,132 in 1996/97 to 192,165 in 2004/05 quadrupling in less than a decade. The annual enrollment growth rate of 50.86 % was possibly the highest in the world during this period (MoE, 2005).

In recent years, number of higher education institutions elevated in tremendous manner and Ethiopia now has 33 governmental universities in different parts of the country. Depending on the strategy of the country it looks like Ethiopia is achieving quantitative goals in higher education sector. As education goes beyond quantitative matters in number of enrollments and universities, this study will focus on the product of these higher education institutions.

2.8.QUALITY OF ETHIOPIAN HIGHER EDUCATION

The increasing concern for quality in many Sub-Saharan African countries comes at a time from growing recognition of the potentially powerful role of higher education for growth and its rapid expansion since the new millennium (Materu, 2007). In the recent past, many of the Sub-Saharan African countries have implemented higher education expansion policies, which resulted in a significant enrolment growth. Ethiopia is one of these countries.

Poverty alleviation in Ethiopia requires sustained economic growth, good governance, and political stability in order to be effective. Growth derives from skilled human resources and national productivity increases leading to greater country competitiveness in the regional and global economy. Productivity gains are generated by national innovation systems in which tertiary education institutions play a fundamental role (World Bank, 2003).

In Ethiopia Especially undergraduate education, both public and private, has shown a huge expansion from slightly above 200,000 students in 2006/2007 to almost 500,000 students in 2011/2012. However, Higher education contribution to the knowledge economy requires the combined management of enrollment growth with sustainability in financing and preserving education quality (World Bank, 2009).

Table 2: Enrolment in terms of college and institutes, 2014/15

Band		Engineering and Technology	Natural and Computational Sciences	Medicine and Health Sciences	Agricultural and Life Sciences	Business and Economics	Social Science and Humanities	Grand total
Regular	Male	118,078	24,586	23,32	19,3	25,785	32,820	243,95
	Female	52,881	14,393	10,87	10,7	17,437	18,056	124,35
	Total	170,959	38,979	34,19	30,0	43,222	50,876	368,31
Evening	Male	22,606	2,357	9,996	3,1	23,916	6,864	68,85
	Female	8,467	1,080	7,149	1,1	16,473	4,576	38,84
	Total	31,073	3,437	17,14	4,2	40,389	11,440	107,69
Summe	Male	6,377	25,261	2,682	8,2	1,307	30,188	74,06
	Female	1,836	8,331	1,318	1,4	598	13,941	27,47
	Total	8,213	33,592	4,000	9,6	1,905	44,129	101,53
Distance	Male	1,011	428	1,184	1,5	11,790	10,820	26,74
	Female	640	180	400	384	7,152	5,321	14,07
	Total	1,651	608	1,584	1,8	18,942	16,141	40,82
Total	Male	148,072	52,632	37,18	32,2	62,798	80,692	413,61
	Female	63,824	23,984	19,73	13,6	41,660	41,894	204,75
	Total	211,896	76,616	56,92	45,8	104,458	122,586	618,37
	% Female	30.1	31.3	34.7	29.8	39.9	34.2	

Source: Education statistics, Ministry of education 2014/15

What we are about to see is if such expenditures are helping Ethiopia in achieving national goals by analyzing the quality of Ethiopian higher education using the data gathered from employers and employees. This initiation comes from the idea of looking at the graduates' skills and knowledge after attending higher education and relates it with education quality and current Ethiopian social, economic and technological situations. So as to do that, five sectors are purposely selected.

In a country where most policies and proclamations are concerned with expansion of higher education institutions, a study on the quality of education is very vital. However, a study on quality is not as easy as it sounds. The very challenge on studying quality of higher education is finding a convincing guideline that can go through the existing trend of Ethiopian higher education.

This particular study brings a new perspective to look at quality of education. As Ethiopia is concerned with enhancing the number of higher education graduates, the research will try to analyze the product of these higher education institutions. The quality of Ethiopian higher education will be studied using data from the working environment by looking at the fitness of graduates in to the requirements of the employers.

2.9.ADDIS ABABA UNIVERSITY

2.9.1. SOCIAL SCIENCES

The Faculty of Arts, which was established in 1952, preceded the College of Social Sciences by two decades, the latter having been established in 1978. During the first decade of university education in Ethiopia, most social science courses were offered as electives for students majoring in the Arts. It was only in the second decade (from 1960 and onwards) that social science departments such as History (1960-61), Geography (1961) and Social & Political Science (1962) were established as proper academic divisions which then began to offer courses with the aim of graduating students in their respective fields (College of Social Science Bulletin 2007). The teaching of social sciences in Ethiopian higher institutions continued throughout the 1960s and early 1970s even though the name 'social science' was not used until late 1970s. By 1978 all the cognate social science disciplines were formally organized into the College of Social Sciences (Abeje Berhanu, 2014).

Since then social sciences in Ethiopian higher education institutions witnessed tremendous changes in terms of enrolment and experience. In Ethiopia, where the need of professional societal services are very much needed, higher education graduates play a pivotal role in understanding the need of the community.

Recently, the government introduced the 70/30 education policy designed to increase the intake capacity of engineering, natural science, health, agriculture and related subjects in higher education. All public universities and colleges have to allocate 70 per cent of the admissions to students who would major in the above subjects. The remaining 30 per cent is allocated to business, economics and other social sciences (including law, humanities, languages, education, etc). This policy decreased the enrolment rate of social sciences and graduates from these departments accordingly. However, even if the intake rates of this college/institution have decreased, Ethiopia now has 33 public universities which uplift the number of graduates from social sciences in a moderate manner.

2.9.2. NATURAL AND COMPUTATIONAL SCIENCES (NCS)

Like the other colleges and institutes the history of natural and computational sciences in Ethiopia has a tight connection with Addis Ababa University. After the establishment of the university, when formal lectures started in the College on December 11, 1950, the Faculty of Science, one of the only two Faculties then, had only two departments or sections, known as Section A and Section B. In Section A, students were given basic training in Engineering, which would enable them to go abroad to specialize in one of the many branches of Engineering, whereas those in Section B were prepared for Medical School as well as for further studies in Biology and allied fields.

In 1956-57 the Faculty took a step forward by changing the three-year Section B program into a four-year B.Sc. degree program in Biology. By 1959-60, there were three B.Sc. degree offering programs in the following combination of subjects: Course A -Mathematics and Physics; Course B -Biology and Chemistry; and Course C -Chemistry and Geology. Similarly, in 1959-60, the Section A program was amalgamated with the newly established Engineering College.

When the Haile Selassie I University was established in 1961, the Faculty of Science was reorganized into five teaching Departments, all offering B.Sc. degree programs. These were the Departments of: Biology, Chemistry, Geology, Mathematics, and Physics. A Forestry Department, the Natural History Museum and the National Herbarium were established a little later, while a Statistical Training Centre was opened in the Department of Mathematics, center that developed into a full-fledged Department of Statistics in the early 1970s (Addis Ababa University official website).

2.9.3. TECHNOLOGY AND ENGINEERING

Along with Addis Ababa University, the back then imperial college of engineering was established as the first teaching institution of engineering in 1953. At the beginning, the college opened two-year intermediate engineering programs. Subsequently, the students were sent abroad for a further study leading to a B.Sc. degree. In 1958, a four-year degree program in civil and industrial engineering was launched. In the following year, the industrial engineering program was split into electrical and mechanical engineering programs, and the duration of the study for all programs was extended to five years. In 1961, the college became a chartered member of Addis Ababa University and expanded further in 1963 by opening the Department of Architecture and Urban Planning (Addis Ababa Institute of technology official website).

In the last two decades, technology and engineering gained more recognition considering their importance in the process of poverty alleviation. Keeping this in mind, the Ethiopian science and technology agency 2006, suggested establishment of research institutes, technology centers, design enterprises, science and technology support services in various sectors and higher educational establishments which would be responsible for the actual performance of science and technology activities.

In 2009, the Ethiopian government has introduced new educational policy whereby the student admitted to tertiary education would be 70 % Science and Technology, and 30 % social sciences, business, economics, and humanities. In this ratio, the engineering and technology contribution is expected to be on average about 40 % of the student population in the undergraduate programs. This was introduced to create engineers and scientists needed to speed up technology transfer and innovation in order to bring the transformation and fast growth in the Ethiopian economy.

2.9.4. HEALTH SCIENCES

The beginning of modern health education is similar to that of natural sciences. When Addis Ababa University was established in 1950 with two faculties, faculty of science was composed two sections and one of them was dedicated to medical school and biology. We focus on medical schools. Medical schools in Ethiopia since then were known with their strategy of in taking limited number of students.

Until recently, Ethiopia had just one physician for every 100,000 people, but now the country is dramatically increasing the number of doctors it produces by increasing the enrolment rate per universities and also opening new medical schools in number of universities in Ethiopia. Despite the vision of the country, this tremendous increase in number of medical students and doctors put quality of their education in question.

2.9.5. BUSINESS AND ECONOMICS

The former Faculty of Business and Economics has its origin in the creation of the Department of Economics in 1959 under the Faculty of Art of the University College of Addis Ababa. This first move was followed by the establishment of the College of Business Administration in 1963, which consisted of two departments, namely the Department of Management and the Department of Accounting. In 1978 the College of Business Administration, the Faculty of Art and the School of Social Work were merged to form the College of Social Sciences. Twelve years later (in 1990), the University Senate decided to reorganize the College of Social Sciences, which resulted in the formation of the Faculty of Business and Economics (FBE). Following the formation of FBE, the faculty office moved from the main campus to the former place of the Crown Price in 1992 (AAU official website)

CHAPTER THREE

3. METHODOLOGY

3.4.RESEARCH DESIGN

The very purpose of this paper is studying the quality of Ethiopian education from the perspectives of the working environment which includes employers and employees. In other words, the major concern of this study is to analyze the capacity of the product of Ethiopian higher education system.

Depending on the research questions, the objectives of this paper are explored by using mixed research method. Exploring the working environment is a composition of a study on the employees to determine if they are fitting in to their jobs and if actually their educational background is helping them to be successful in their respective fields. While we are in the working environment, analysis on the employers' perspective towards their employees is thoroughly conducted. Using both employees and employers perspectives, analyzing the quality of Ethiopian higher education is the final stage.

Using these two perspectives as measurement tools for education quality is helpful to determine if the defects and strengths of Ethiopian education are reflected on the outside world. And it is easy to assess what has to be changed to make graduates successful after their school life.

3.5.STUDY AREA

The study is conducted in Addis Ababa, Ethiopia. This area is selected because it enabled the research to be feasible and precise and also Addis Ababa is a capital city of Ethiopia where every economic and social matter passes through. Addis Ababa has a flavor of every city in Ethiopia. Therefore, studying Addis Ababa's situation is helpful in terms of including various businesses and different types of graduates from different parts of the country.

The study focused on different fields that incorporate employers and employees. Professionals and owners in these fields played their own part to explore the quality of Ethiopian higher education. Some of these fields are social sciences, natural sciences, businesses and service providers. Part of these fields need direct application of employees' education and some of them don't. Nonetheless, they had their own say on the study of education quality in terms of producing fit graduates.

3.6.SAMPLING

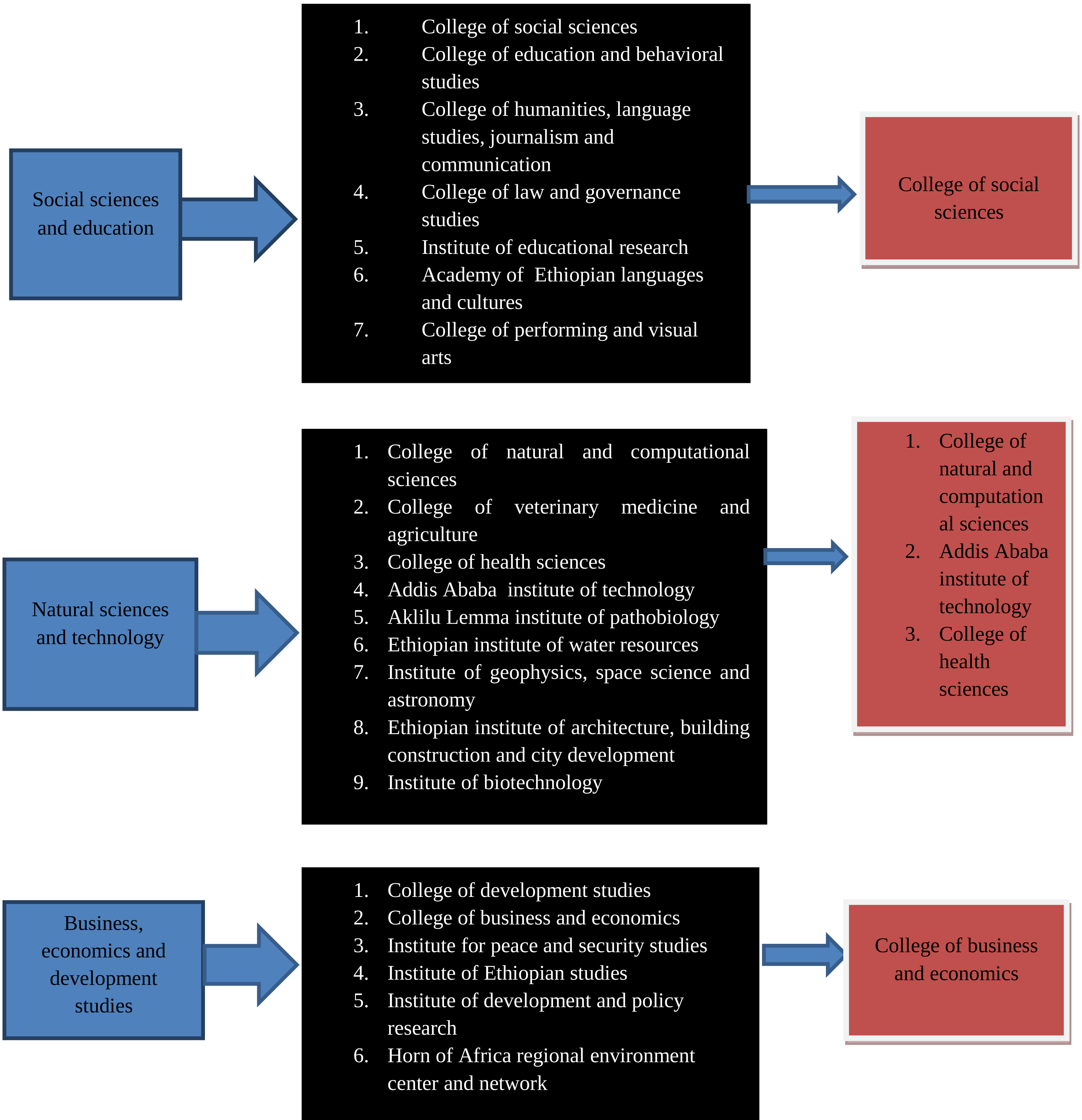
Quality of education is a very wide concept. In this particular research we will be more concerned with higher education quality. To narrow down the scope of the study and area of the data collection purposive sampling is applied. The first step is to select an institution with more experience and has many colleges and institutes. Addis Ababa University fits into this category in a perfect manner.

The university information center provides the history and current enrollment as "Addis Ababa University (AAU), which was established in 1950 as the University College of Addis Ababa (UCAA), is the oldest and the largest higher learning and research institution in Ethiopia. Since its inception, the University has been the leading center in teaching-learning, research and community services. Beginning with enrollment capacity of 33 students in 1950, AAU now has 48,673 students (33,940 undergraduate, 13,000 Master's and 1733 PhD students) and 6043 staff (2,408 academics and 3,635 support staff). In its 14 campuses, the University runs 70 undergraduate and 293 graduate programs (72 PhD and 221 Masters), and various specializations in Health Sciences. Over 222,000 students have graduated from AAU since its establishment"

Colleges and institutes taken from Addis Ababa University are categorized under three categories. These categories are used to sample out colleges and institutes. There are 22 colleges and institutes in Addis Ababa University are categorized as; Social science and education, Natural sciences and technology and Business, economics and development studies.

These categories are created depending on similar lesson delivery methods and graduation periods. From these three categories five college and institutes are selected depending on their enrollment capacity. The selected colleges and institutes are college of social sciences, college of natural and computational sciences, Addis Ababa institute of technology, college of health sciences and college of business and economics.

Depending on the objectives of this research, sixty graduates of the selected colleges and institutes are thoroughly examined. Eight interviews were conducted with employers, managers and human resource managers in five different sectors. Quality of higher education is analyzed from the perspectives of the graduates and from the employers that hire graduates from these fields. These organizations are selected as they hire graduate from the selected colleges and institutes.



3.7.METHOD OF DATA COLLECTION

The data is collected using interview and questionnaire. The interviews were conducted with employers, business owners, managers and employees. The interview had the purpose of knowing their perspective regarding the current higher education graduates fitness into the working environment. In the case of employers, I tried to determine if they think their employees are fit and fulfill the requirements of the working environment.

When we come to the questionnaire, it is distributed for employees in the sample as interview with all of them will be time consuming. While using questionnaire, subjects that are not assessed using interview will be studied. Results from the questionnaire were helpful to support our findings on numerical bases.

Both methods will enable us to see different perspective and to get bold answers on educational system. The information bias will be slightly diminished as the answers are from different stake holders of education. Both methods will include detailed questions on students' activity, teachers' capacity, problems of the system and their suggestion will be requested.

3.8.METHOD OF DATA ANALYSIS

Using the objectives of this research as a bounding framework, the analysis is done in three parts. The three parts are; employers' perspective towards their higher education graduate employees, employees' perspective towards their higher education experience and the relationship between the two perspectives and quality of Ethiopian higher education. These parts have their own sub parts to closely look at what is going on in the working environment along with higher education.

So as to have a glimpse of employees' attitude towards their stay in higher education and significance of skills and capabilities they accumulated from higher education in their current working environment, 60 employees from different sectors were involved in data collection using questionnaire. As a major player in the working field, employees had their own say in this study. In order to have a clear understanding of these employees, a questionnaire was distributed to 60 higher education graduate employees in different sectors. The questionnaire targeted employees with less than three years of experience. The rationale behind this selection is to get employees with fresh memory of their higher education experience.

The questionnaire had three parts. The first part was composed of general questions to understand the graduates' level of satisfaction with their stay in higher education. The second part consisted different skills and qualities that graduates supposed to have after finalizing their particular study. In this part it was tried to pick common skills that graduates should be equipped with despite their discipline. In general terms the purpose of this part of the questionnaire was to comprehend the contribution of higher education in graduates' level of a particular skill. These skills and capabilities also considered the need of employers in current working environment. Therefore, we can say these parameters created a common ground between graduates level of these skills and employers requirements. The parameters are categorized as follows:

Table 3: categories of skills and qualities

<table>
<tr><th>Business and practical skills</th><th>Personal management skills</th><th>Cognitive skills</th><th>Instrumental and communication skills</th><th>Inter-personal skills</th><th>Professional attitude and ethics</th></tr>
<tr><td>Business awareness</td><td>Personal commitment</td><td>Ability to process numerical data</td><td>Computer and technical literacy</td><td rowspan="4">Working effectively with others</td><td>Positive attitude and energy</td></tr>
<tr><td rowspan="2">Application of technical knowledge</td><td rowspan="2">Attention on detail</td><td rowspan="2">Ability to cope with work pressure</td><td rowspan="2">Foreign language capability</td><td>Reliability</td></tr>
<tr><td>Ethically and socially aware</td></tr>
<tr><td>Entrepreneurial skills</td><td>Working Effectively on their own</td><td>Adaptability and flexibility</td><td>Effective verbal and written communication</td><td>Professionalism and work ethics</td></tr>
</table>

The employees who filled the questionnaire scaled their level of these skills as excellent, very good, good, satisfactory, disappointing and not measurable only by considering the contribution of their higher education study.

These scales are condensed in to three as follows;

Table 4: scales of higher education contribution

Below Average	Average	Above Average
Disappointing	Satisfactory	Excellent
Not Measurable	Good	Very Good

The next step of the data presentation is to specifically look at each colleges and institutes in the sample separately. First the purpose and the meaning of each college/institute will be roughly discussed. Along with this discussion the results of the questionnaire will be shown using descriptive statistics. Descriptive statistics enables us to scale the contribution of higher education in enhancing these skills and qualities in terms of percentage

The final part of the questionnaire included open ended questions regarding current situations and experience of graduate employees in the working environment. And it tries to relate this experience with their higher education.

The second part of the analysis deals with employers perspectives. Eight interviews were conducted with general managers, owners and human resource personnel in seven different sectors in order to understand what they think of recent graduates of higher education by looking at their employees. The interview tried to analyze employers' level of satisfaction with their employees.

The final part of the analysis will be concerned with creating a relationship between the two perspectives and quality of Ethiopian higher education. Using the results of the questionnaire and the interview, some sort of connection will be established. This connection will be helpful to see the level of Ethiopian higher education in rearing market oriented graduates.

After data presentation descriptive analysis will be employed to come up with a detailed analysis on education quality and its relation with the working environment. In other words, the connection between higher education quality and the working environment will be studied using data from the members of outside world. The data from employees and employers will balance the composure of our data and make the description more reliable.

CHAPTER FOUR

4. DATA PRESENTATIONS AND ANALYSIS

This part of the study deals with making sense of the collected data using questionnaire and interview. As already stated in the previous chapters, the questionnaire was distributed to graduates of higher education institutes who are currently in action in the working environment of various sectors in the sample. The interview, on the other hand, was conducted with owners, general managers and human resource managers.

As clearly stated in the methodology part, five colleges and institutes were selected using purposive sampling. These colleges/institutes are; college of social sciences, college of natural and computational sciences, Addis Ababa institute of technology, college of health sciences and college of business and economics. Up to 12 questionnaires were filled by the product of each of these colleges/institutes.

The analysis of employees perspective begin with the second part of the questionnaire and use the first and third parts for further discussions regarding linkage between quality of higher education and employment.

Six categories of skills; business and practical skills, cognitive skills, interpersonal skills, personal management skills, instrumental and communication skills and professional attitude and ethics are used to measure the effectiveness of higher education in producing graduates that can fit into the working environment. These skills are separately examined along with the different streams.

Graduate employees in different sectors scaled their level of these skills and qualities as below average, average and above average. The discussion part followed up each tables of the mere data so as to give a more composed analysis. The discussion has two parts which are employees' and employer's perspectives in each sector.

The major concern of this study is looking at the product of the sample colleges and institutes in terms of equipping them with the necessary skills. The standing ground of the questionnaire was basic knowledge and skills that graduates supposed to have after attending higher education. This trend goes on for each colleges and institutes. The below tables are simple description of higher education quality in terms enhancing graduates skills and qualities.

Table 5: Business and practical skills of graduates

Streams	Business and practical skills	Below Average (%)	Average (%)	Above Average (%)
Social Sciences	Business Awareness	38	38	24
	Application of technical knowledge	13	37	50
	Entrepreneurial skills	50	38	12
Natural and computational sciences	Business Awareness	40	40	20
	Application of technical knowledge	35	45	20
	Entrepreneurial skills	50	35	15
Technology and engineering	Business Awareness	53	40	7
	Application of technical knowledge	14	53	33
	Entrepreneurial skills	48	45	7
Health sciences	Business Awareness	34	56	10
	Application of technical knowledge	20	35	45
	Entrepreneurial skills	40	35	25
Business and Economics	Business Awareness	24	35	41
	Application of technical knowledge	25	52	23
	Entrepreneurial skills	29	47	24

4.4.EMPLOYEES' PERSPECTIVE TOWARDS SOCIAL SCIENCES

Each table depicts proportion of graduate employees in the social science sector and degree of higher education contribution in elevating their skills and capabilities. These numerical descriptions are concerned with the number employees in the sample with the level of skills they gathered from attending higher education. For instance, if we look at business awareness 38% of the employees think the contribution of higher education in equipping them this particular skill is below average. Same applies to the other skills and their levels.

Business and practical knowledge implies awareness regarding application of the knowledge graduates gathered from higher education. Business knowledge is all about knowing what is going on the outside world. From the graduate employees who were in the sample 38% of them believe the higher education contribution in raising their business awareness is below average. In the discussion part of the questionnaire different reasons were raised. But most of them circle around the shortage of practical courses in higher education of social sciences. To put this in numbers, three out of four employees believe the reason behind low business and practical awareness is a higher education filled with theoretical knowledge.

Entrepreneurial skill which is very much related with practical knowledge, according to 50% of the employees, did not get significant emphasis in Ethiopian higher education institutes. In social sciences, Entrepreneurship can be expressed in terms of finding a new way of solving social problems. Half of the employees who were in the sample agree on one thing, contribution of higher education in equipping them with this skill is very much limited.

When we come to the cognitive skills, two out of three employees face an obstacle when they first join the working environment. Cognitive skills help to understand changing economic, social and environmental situations. The employees blame the exam style for encountering such problems. The exams in Ethiopian higher education, according to the employees, are concerned with theoretical matters. Therefore, when they join the working environment it is very hard to cope with the rapidly changing conditions.

A personal management skill is composed of attention on detail, personal commitment and working effectively on their own. Higher education has a way of building this skill by making learning and teaching process interesting and challenging in a good way. One out of four employees believes that their commitment is very much affected by the grading system along with the examination.

Instrumental and communication skills are all about techniques that matters in our day to day life. For instance, verbal and written communications in social sciences have a better status compared to other fields. There are a lot of assignments and presentations which indirectly affect their communication and foreign language skills. Higher educations' contribution in equipping graduates in Computer and technical literacy, on the other hand, is very much limited.

When we look at interpersonal skill (working effectively with others), one out of four employees have a problem working with others and also the contribution of their higher education in developing this particular skill is insignificant.

The final parameter is the professional attitude and ethics. Under this parent category the low scoring category is positive attitude and energy. 25% of the employees in this sector believe the impact of higher education in developing their positive attitude and energy is below average. May be this is because the development of this skill is dependent on the background of the student. However, a well-organized higher education system that can expose the students to new experiences can make some contributions.

4.4.1. EMPLOYERS' PERSPECTIVE ON THE GRADUATES OF SOCIAL SCIENCES

'We should find a way to develop graduates with a better understanding of their society.'

NGO, manager

According to employers of social science graduates of higher education, current graduates have eagerness in changing their living conditions but they are passive in involving in crucial societal matters. Employers implement different criteria to recruit employees but it is very difficult to understand their level of different skills using those criteria.

Social science fields are more related with the attitude of the employee and their commitment. For most employers in this sector the first problem is lack of commitment. This problem is related with the education system as a whole and higher education in particular. Exposure to the outside world instead of theoretical exams can play a significant role in the process of building committed social service providers.

There is also a gap in applying the theoretical knowledge they gathered from their education even if there are practical sessions at the end of their courses. According to the employers, this is because the students are not committed enough to follow up these practices. Here comes the concept of interest. After the implementation of 70/30 education policy, the interest of the student is not considered. Students get in to social sciences just because they have to not because they want to. This makes it difficult for them to pursue what they want.

The other problem mentioned by the employers is lack of knowledge of Ethiopian history. Ethiopia is a country with a proud and problematic three thousand years of history. History knowledge can initiate students to solve social, economic and political problems. And above all, historical knowledge can develop patriotism which in turn increases personal and group commitment.

The final point as a problem was missing the very objectives particular courses. After joining the working environment (social service in this case) graduates tend to get confused by not understanding why they were taking all those courses while they were attending higher education institutions. Basic knowledge and understanding of each and every course and their importance to the outside world should be crystal clear for the graduates.

Table 6: cognitive skills of graduate employees

Streams	Cognitive skills	Below Average (%)	Average (%)	Above Average (%)
Social Sciences	Ability to process numerical data	13	63	24
	Ability to cope with work pressure	13	62	25
	Adaptability and flexibility	50	38	12
Natural and computational	Ability to process numerical data	25	40	35

sciences	Ability to cope with work pressure	20	65	15
	Adaptability and flexibility	30	45	25
Technology and engineering	Ability to process numerical data	-	47	53
	Ability to cope with work pressure	-	73	27
	Adaptability and flexibility	19	54	27
Health sciences	Ability to process numerical data	30	40	30
	Ability to cope with work pressure	10	50	40
	Adaptability and flexibility	15	60	25
Business and Economics	Ability to process numerical data	18	41	41
	Ability to cope with work pressure	41	41	18
	Adaptability and flexibility	47	35	18

4.5.EMPLOYEES' PERSPECTIVES ON NCS

Over the years the natural and computational sciences went through significant expansion and experience. Their importance in knowing our environment is very well recognized. The enrolment of students in higher education institutes also increased along with the opening of 33 public universities.

Like other natural science fields, the expenditure for these colleges around Ethiopia is overwhelming, which brings the idea of quality education. So as to sustain quality along with expansion different measurements were taken. By using the common parameters we will try to see if the colleges of natural and computational sciences are equipping graduates with the necessary skills and capabilities.

Each table depicts the contribution of natural and computational science in equipping graduates in different skills and qualities. Like already said this skills and capabilities have a contextual meaning depending on the field of study.

The first parent category is business and practical skills that can be affected by the results of the three sub skills. For instance the impact of higher education in developing business awareness, according to one out of two graduate employees, is below average. When the students graduate out of higher education, it is without any knowledge of what is going on in the outside world of natural and computational science. The same goes to entrepreneurial skill. Innovation and discovery after graduation is very much bounded. 85% of the graduate believe the role higher education played in developing knowledge of entrepreneurship is average or below average.

In terms of cognitive skills, natural science graduates have a better status in analyzing numerical data and coping with work pressure and higher education played a significant role. Conversely, they still have a problem in adapting a new environment. This is related to the lack of practical knowledge in higher education. One out of two employees admits they encountered a challenge when they were new to the working environment.

The same goes to personal management skills. One out of four employees admits the contribution of higher education in developing their personal commitment is below average. Similar to other problems, this problem is connected to practical knowledge. 25% of the employees, who were in the sample, believe higher education did not make them ready to work by their own.

In natural and computational sciences, instrumental and communication status is worse compared to other fields. For instance, computational science needs fulfillment of practical equipment, like computers. Because of intensive expansion of higher education institutes, that is not attainable for most of them. In this study, one out of three employees believes they did not get what they supposed to in terms of computer and technical literacy. When we look at the impact of higher education in enhancing foreign language and communication skills, we find similar results.

The major challenge comes when we look at interpersonal skills. In order to work effectively with others, an attitude build up is very essential. Different cultures come in to one when the students join higher education. However, either they never got along with their classmates or the working environment is completely different, the higher education system did not help in developing smooth relationship among graduates. Eight out of ten employees mentioned the first challenge when they join the working environment is getting along with their colleagues.

The last parameter is professionalism and work ethic. In this part, the low scoring sub parameter is being ethically and socially aware. This parameter has a skintight connection with inter personal skills. Understanding necessary ethics and other societies' cultures can definitely help the smooth transition to the working environment. Higher education, in this case, can play a substantial role by bringing different cultures together. Nevertheless, natural and computational sciences graduates find it challenging to work with their colleagues just because higher educations are competition arenas. To put it in numbers, 25% of the graduates finish their higher education without knowing work and social ethics.

4.5.1. EMPLOYERS' PERSPECTIVES ON PRODUCTS OF NCS

'Acid base titration (a procedure which is used to determine the concentration of an acid or base) is a basic knowledge of chemistry in lower grades and sadly, higher education graduates comes to job interviews without knowing that procedure'

Manufacturing, production manager

Like most of the other fields practical knowledge is lacking from natural and computational sciences. According to the employers, let alone the practical know-how some graduates sometimes lack basic theoretical knowledge. We might blame scarcity of necessary equipment for lack of practical skill but theoretical knowledge is very much dependent on personal commitment.

The other major challenge is communication problem among employees. When an interview was conducted with a production manager in manufacturing sector, he emphasized on the groups and sub groups created among the employees depending on their ethnicity and salary. They frequently fight because of various matters that are completely unrelated to their jobs. Such problems are complicated to solve and they create a major obstacle in the working process.

Most of the time, the employers in this sector prefer to motivate the staffs they already have instead of hiring a new graduate because they already adopted the working environment and the need of the company. When new graduates are hired, their new energy helps the company to exhaust their effectiveness. However, this is subject to the quality of the newly hired personnel.

To make a good profile while hiring a new graduate is almost impossible. In the manufacturing sector, the interview to hire a new staff involves practical assessment. Nonetheless, assessing the attitude and other implicit skills is pretty much difficult. For the sake of solving this problem, there is a trial period of forty five days even if its effectiveness is still in doubt. Sometimes, after the trial period, employees tend to have a new behavior that was not there at first.

'Ethiopia, where over 80% of the population is agrarian, is finding it difficult to get over with the system of agriculture. Agriculture gives a time space between harvesting and gathering. People tend to rest in that period. That is not the case when the children of the farmers come to the industry. You have to work 24/7 to keep on the production and to cope up with the spinning and competitive market. Therefore, we need to show the graduates what is going on in the outside world' Manufacturing, general manager.

Table 7: Personal management skills of graduate employees

Streams	Personal management skills	Below Average (%)	Average (%)	Above Average (%)
Social Sciences	Personal commitment	25	50	25
	Attention on detail	22	38	40
	Working effectively on their own	15	62	23
Natural and computational sciences	Personal commitment	25	35	40
	Attention on detail	20	50	30
	Working effectively on their own	25	45	30
Technology and engineering	Personal commitment	12	33	53
	Attention on detail	27	60	13

	Working effectively on their own	7	53	40
Health sciences	Personal commitment	20	44	36
	Attention on detail	15	55	30
	Working effectively on their own	10	65	25
Business and Economics	Personal commitment	14	29	57
	Attention on detail	24	41	35
	Working effectively on their own	24	41	35

4.6.EMPLOYEES' PERSPECTIVES ON TECHNOLOGY AND ENGINEERING

The importance of the expansion of this field is undeniable as long as our objective is to look at a better Ethiopia. But here also there is a question of quality education. After introducing a number of students to the tertiary education in this sector, equipping them with vital skills and capabilities is very crucial. In this part, we will try to see what graduate employees think of their higher education experience using the common parameters and raising different discussion points.

The following tables show the number of graduate employees of engineering and technology and the contribution of their higher education in elevating different skills. These skills can be defined according to the field of study. In other words, what we call application of technical knowledge in social sciences and engineering is completely different.

Like we did for the previous fields, we first focus on the parent categories and get in to particular skills depending on the level of the higher education's contribution in scaling up that specific skill. To being with let us start with business and practical skill which is composed of business awareness, application of technical knowledge and entrepreneurial skills. In this category eight out of ten employees believe the contribution of higher education in elevating their business and entrepreneurial skill is below average. Despite the policy of Ethiopian government which is concerned with innovation and discovery, the impact of higher education is very insignificant.

Cognitive skill which constitutes ability to process numerical data, ability to cope with work pressure and adaptability and flexibility has a better status in engineering and technology sector compared to other fields. This is because of the style of Ethiopian higher education which focuses on mathematical analysis.

Attention on detail which is a part personal management skill, according to one out of four employees, is roughly taken in to consideration in Ethiopian higher education. To give a concentrated attention to every single detail, exams and other testing methods of students should have been free from long and frustrating theories. After being a part of the working environment, Employees tend to get bored when the load of work is intensified and they do not give enough attention to what they are doing.

Graduates of Addis Ababa University have a better exposure to the 4^{th} parameter which is instrumental and communication skills whether they are graduates of engineering or not. But still the exposure is not from higher education instead an active environment. For example, only two out of ten graduates believe higher education has a positive impact in increasing foreign language capability and communication skills.

When we look at interpersonal skill, one out of four employees believes the role of higher education in building this particular skill is insignificant or below average. Most graduates spend their time in analyzing theories and studying courses on their own which leads to communication and malfunctioning while working with others.

Like the other fields higher education is declining in making a constructive impact in developing positive attitude and energy. This skill, according to employees, needs an interactive and interesting so as to be effectively implemented. Some employers do not consider positive attitude and energy as a skill rather they consider it as a state of mind that affects other skills and qualities. However, they believe higher education can play a significant role in managing and equipping the graduates with this skill.

4.6.1. EMPLOYERS' PERSPECTIVES ON THE PRODUCTS OF TECHNOLOGY AND ENGINEERING

'Sometimes it feels like I am a judge trying to solve communication problems among employees'

Maintenance supervisor, electrical Engineer

Despite their eagerness for innovation, the practical knowledge of recent graduates is very much limited. It takes them two or three months to adapt the new working environment. Engineering and technology has a culture of sending students for internship at the final year. However, students do not follow up the program in a proper manner which leads to the shutdown of a slightly open window to practice.

Depending on the recruiting criteria, recently, it is easy to find an ideal graduate with better grades and internship experience. The problem comes when they start working in the company. The attitude and lack of spirit make their way to the working environment. Such problems result inappropriate wastage of time. Higher education, whatever the fields are, should have a trend of building up a positive attitude and strong spirit to work.

It is very challenging to find a graduate who has learnt to learn. The process of learning does not stop at the graduation. Recent graduates tend to believe in their grades and their attitude is difficult to overcome and to teach them something new. The working environment has a new way of teaching employees different skills. Therefore, higher education institutes should keep on building a positive attitude and rear graduates in a way that they are ready for something new from their previous experiences.

Table 8: Instrumental and communication skills of graduate employees

Streams	Instrumental and communication skills	Below Average (%)	Average (%)	Above Average (%)
Social Sciences	Computer and technical literacy	63	13	24
	Foreign language capability	13	50	37
	Effective verbal and written communication	19	52	29

Natural and computational sciences	Computer and technical literacy	35	45	10
	Foreign language capability	30	50	20
	Effective verbal and written communication	45	30	15
Technology and engineering	Computer and technical literacy	6	53	41
	Foreign language capability	34	45	21
	Effective verbal and written communication	30	52	18
Health sciences	Computer and technical literacy	25	45	30
	Foreign language capability	30	50	20
	Effective verbal and written communication	20	45	35
Business and Economics	Computer and technical literacy	24	41	35
	Foreign language capability	17	50	36
	Effective verbal and written communication	19	46	35

4.7.EMPLOYEES' PERSPECTIVES ON HEALTH SCIENCES

In this study medical doctors with less than three years of experience are involved to give us a mere view of their higher education experience. Like the other fields we will try to measure it with the common parameters and follow up discussions.

The following tables shows employees' perspectives towards the impact of their higher education experience in developing essential skills that can help the graduates in their professional and personal life.

This is part of the study was conducted using information gathered from medical doctors. When we look at the first category of parameters (business and practical skills), the results are pretty much similar with the other fields. For illustration, one out of three employees believes higher education impact in terms of developing business awareness. Business awareness, in medical case, can be explained as knowing what is going in the health sector and understanding the effect of their involvement in the sector after graduation. Similar result is witnessed with entrepreneurial skill. One out of two medical doctors does not think they evolved in entrepreneurial skill after attending higher education.

Despite a low score in numerical data analysis, which is because of the field, employees in this sector have a good standard of cognitive skills. In terms of coping up with work pressure, because of the internship at the final two years, they developed a trend of working in an intensive work environment. Similar result is observed when we looked at adaptability and flexibility.

The third parameter, which is personal management skill, is also better compared to other fields. However, impact of higher education in improving personal commitment in this sector is very insignificant. One out of four medical doctors finished their higher education in a troubling situation which indirectly affect their commitment to do their job after joining the working environment.

Similar to other fields the contribution of Ethiopian higher education in terms of enhancing instrumental and communication skills is very insignificant. Numerically, two out of three employees in this sector believe that they did not add computer and technical literacy after attending higher education. According to them this is because of scarcity of essential equipment.

Health sciences in higher education have a better way of improving interpersonal skills. The ability to work in a team is well recognized in this sector. Health sciences involve number of individuals to get a certain task done which necessitates working in group. Only one in five employees believe the contribution of higher education is insignificant in equipping graduates with interpersonal skills.

Professional attitude and work ethic, according to the employees, is well developed in this sector. This parameter is a little difficult to measure as we cannot differentiate the impact of graduates' background and their higher education experience. Whatever the case is, along the way, health science professionals developed professional attitude.

Table 9: Interpersonal skills of graduate employees

Streams	Interpersonal skills	Below Average (%)	Average (%)	Above Average (%)
Social Sciences	Working effectively with others	25	62	13
Natural and Computational sciences	Working effectively with others	35	40	25
Technology and Engineering	Working effectively with others	27	66	7
Health Sciences	Working effectively with others	15	65	20
Business and Economics	Working effectively with others	17	30	53

4.7.1. EMPLOYERS' PERSPECTIVES ON THE PRODUCTS OF HEALTH SCIENCES

'You can work with a graduate with average knowledge and skills but it gets complicated when they don't have any idea.'

Cardiology Specialist, Medical doctor

In a very sensitive sector like health science, higher education's role is very vital. Skills developed at the higher level go beyond professional life. The very essential skills in this sector are attention on detail and practical know-how.

Current graduates tend to be reluctant on sensitive matters. Attention to every detail is very crucial so as to come up with great out comes. Higher education system made graduates to be concerned with their grades and getting over the course as fast as possible. There has to be a way to make students interested with what they are learning by including pedagogy so as to train teachers and experienced doctors.

Due to recent increase in enrolment rate, scarcity of necessary materials for practical knowledge is becoming a serious problem. Therefore, when the government opens new institutions of health sciences or any other fields facilities should be seriously considered as a major part of the learning and teaching process.

Table 10: professional attitude and ethics of graduate employees

Streams	Professional attitude and ethics	Below Average (%)	Average (%)	Above Average (%)
Social Sciences	Positive attitude and energy	25	50	25
	Reliability	-	63	37
	Ethically and socially aware	-	13	87
	Professionalism and work ethic	-	38	62
Natural and computational sciences	Positive attitude and energy	15	60	25
	Reliability	10	60	30
	Ethically and socially aware	25	50	25
	Professionalism and work ethic	-	50	50
Technology and engineering	Positive attitude and energy	15	60	25
	Reliability	10	60	30
	Ethically and socially aware	25	50	25
	Professionalism and work ethic	-	50	50
Health sciences	Positive attitude and energy	5	55	40
	Reliability	10	50	40
	Ethically and socially aware	15	55	30
	Professionalism and work ethic	-	60	40
Business and Economics	Positive attitude and energy	17	30	53
	Reliability	25	17	58
	Ethically and socially aware	19	23	58
	Professionalism and work ethic	18	35	47

4.8.EMPLOYEES' PERSPECTIVES ON BUSINESS AND ECONOMICS

Business and economics now has rooted its base in all of the public and private universities which in turn increases professionals in the working environment. The basic question is whether these professionals are equipped with necessary skills or not.

Each table demonstrates the impact of higher education in improving necessary skills and getting graduates ready for the outside world.

Like we have been doing for the previous fields, let us start with business and practical skills. In business and economics sector these skills are more than essential. However, one out of four, employee do not believe higher education established a convenient way of awareness creation about the out the outside business world. Even if entrepreneurial skill has a better status compared to other fields, most employees are not confident enough to say they are entrepreneurs.

From cognitive skills that constitute three parameters only ability to process numerical data is in a better status compared to the other two skills. One out of two employees believes the impact of higher education in developing adaptability and flexibility and cope up with work pressure is pretty much insignificant. The higher education, according to the employees, is more concerned with theoretical studies which in turn make them know nothing about work pressure.

When we look at the Personal management skills in the business and economics sector, it is composed of personal commitment, attention on detail and working effectively on their own. The impact of the higher education is average or below average. This is due to lack of practical know-how.

The 4th parameter is instrumental and communication skills. In this category, 25% of the employees believe that the contribution of higher education in developing computer and technical literacy is below average. This is because of the scarcity of the different essential equipment.

The fifth category is interpersonal skills which involves working effectively with others. When we measure interpersonal skill from the perspective of employees, the role of higher education is contributed better than the other fields. However, there is still a room for improvement so as to some up with a better result.

The last parameter is professional attitude and work ethics. From the angle of business and economics, the low scoring sub parameter is reliability. This skill is related to confidence in knowledge gathered from the higher education. One out of four employees does not believe they are reliable enough to cope with the working environment.

4.8.1. EMPLOYERS' PERSPECTIVES ON THE PRODUCTS OF BUSINESS AND ECONOMICS

'Instead of focusing on theoretical knowledge, we should find a way to train students how to think'

Private sector, HR manager

Education is all about readiness of students to the outside world. The big challenge comes here. If the students do not know how to function in the outside world beside the theoretical knowledge, it will be hard to adapt the working environment after graduation. As per the requirement of the employment market the system should revise its system.

The major problems mentioned by the employers are: reluctance, dissatisfaction, afraid of challenges, frustration, job instability, lack of open mind, lack of office discipline and ethics. Of course, some of these problems cannot be solved by higher education only. The coordination of business sectors with higher education sectors can open a new window for practice and new challenges for the students.

4.9. MAIN FINDINGS

Despite the differences in the sectors and in the requirements of the employers, if we look at the above numbers, we can easily witness some sort of similarity in the results and the reasons behind. For instance, if we look at the graduate employees and the skills they are equipped with after attending higher education (in spite of their department) has degree of similarity. In this part we will try to see the most common findings.

Business awareness is the first parameter in which, on average, seven out of ten graduate employees in these five sectors believes their higher education did not contribute enough to make them active in the outside world. These employees blame the theoretical based higher education that filled them with theories instead of practical knowledge. Employers have the similar insight in this aspect. Three out of five employers believe without any training after recruitment, new graduates are have no idea how the working and business world functions.

Entrepreneurial skill is the common ground that makes the perspectives of all sectors almost the same. On average 86% of higher education graduate employees believe their entrepreneurial skill after attending their respective departments is disappointing. From the employers' angle, six out of eight employers believe the employees come to work with nothing new. These employers believe, those who have developed this skill are trying their own business instead of getting employed.

When we look at the status of graduate employees in terms of their computer and instrumental literacy, fourth of the employees who were in the sample agree on one thing, Scarcity of instruments like computers and necessary equipment including laboratory and reading materials. The trend of this skill fluctuates depending on the higher institution they attended at. For instance, two out of five employees that have attended Addis Ababa University have a better computer skill but they did not get that skill from attending higher education.

Ethiopian higher education has also a little impact in elevating practical knowledge in all those sectors. This skill is very much related to application of theoretical concepts. Numerically, 87% of graduate employees who are in these sectors lack practical know-how. Three out of four employees believe lack of practical knowledge made them encounter problems when they joined the working environment. When these employees were asked if anything is missing from Ethiopian higher education, nine out of ten answers were concerned with lack of practical knowledge. Employers agree that recent graduates are short of practice. Two out of four employers agree that it takes time for new employees to adapt the new working environment.

When we see beyond the parameters, even employees who are happy with their grades are not confident enough to say they are equipped with most of the necessary skills. To put this in numbers, four out of five employees with cumulative GPA $\geq$3.00 do not believe they have the necessary skills to join the outside world. According to five out of eight employers, using academic achievement as a recruiting criterion is a problematic approach as the grade does not justify the skills they possess.

4.10. IMPLICATION TO SOCIAL WORK

The results illustrated and analyzed in the previous sections can have two implications to the profession of social work. These implications are in terms of developing effectiveness of social work in producing graduates who are ready to face the after school life and in terms of suggesting better ways of teaching learning process.

Like the other fields, social work has got a lot to do in terms of making the field a better ground of knowledge. Practical know-how, computer and technical literacy, personal commitment, ethical and social awareness, entrepreneurship and business awareness should be the major concern. As the employers and NGO managers picked out, especially personal commitment needs a lot of work in the social science fields including social work.

As social work is concerned with developing polices and strategies, social workers involved with higher education should take a long and hard look at polices, strategies, modules and other essential matters that are responsible for the quality of Ethiopian higher education. Implementations also require expertise of social work.

CHAPTER FIVE

5. CONCLUSIONS AND RECOMMENDATIONS

5.1.CONCLUSIONS

From the previous chapter we can conclude that the quality of higher education is related to the employees' possession of different skills. In other words, the quality of higher education is a determinant factor in elevating skills and qualities of graduates. Most employees express their concern regarding the quality of Ethiopian higher education and its capability of equipping its products with essential skills.

Employers are finding it difficult to come up with the best criteria to recruit fit employees and needs the cooperation of higher education in terms of developing the right types of candidates. Degrading higher education means, according to the employers, degrading economic, social and political situation. As per the employees, Ethiopian policies regarding education in general and higher education in particular should focus on the quality instead of quantity.

Practical knowledge, entrepreneurial skill and business awareness and higher educations' contribution in elevating these skills is in a very critical situation where it needs a deep analysis. The employers believe they are running out of fit employees with preferable skills and qualities. Lack of these three skills ranked first. Ethiopian higher education is failing to deliver what it was supposed to in terms of enhancing practical knowledge, entrepreneurial skill and business awareness despite recent developments.

Grades cannot define the skills and qualities that a certain person possesses. According to the data presented in the previous section even those with good grade do not have the required skills. Examinations and other testing methods in current Ethiopian higher education institutes are theory focused.

Ethiopia is thriving in making higher education available for a better portion of the population. As the higher education institutes are increasing in numbers, the problems that comes along with them is uncountable which directly or indirectly affect the quality of Ethiopian higher education. Cost and other matter that comes along with quantity are affecting the products of the institutes in and after school.

5.2.RECOMMENDATIONS

During this paper participants (employers and employees) suggested some points that can make Ethiopian higher education fit and reliable.

If we accept that there are a set of generic skills or attributes that most employers are looking for in their employees, it follows that a curriculum developed around these requirements could provide a solution, particularly in helping individuals become work-ready. An essential part of the curriculum should be the ability to learn.

Along with increasing quality of Ethiopian higher education, employers themselves believe mentoring is an extremely effective mechanism for employees to develop functional understanding and business socialization. Not all training has to be formal. Engaging managers and leaders in the ongoing education of their own staff is a high-impact, low-cost approach that can be easily adopted in any size of organization.

Employers in the manufacturing sector suggested that it should be compulsory for businesses to be involved in the design and delivery of professional education programmes, and governments should provide incentives for business to participate. Engagement between industry, policy and education is vital at every stage. Professional education can only meet its goals if industry clearly and continuously define its demands.

So as to increase practical knowledge, learning-by-doing has long been accepted as the most effective way of teaching someone a skill. Classroom-based teaching must focus more on practical exercises, group work and creative activities. To supplement this, there should also be a considerable increase in the time students spend gaining hands-on experience of the work environment. Apprenticeships are also another way of practical application. Apprenticeships represent a highly successful model for involving business and industry in education, and results are almost universally positive. Many countries are beginning to see the value in this approach, but more can be done – in particular, incentivizing business involvement and supporting investment.

Structuring curriculums and policies regarding education in general and higher education in particular should involve major stakeholders including the work environment. The involvement of these stakeholders can clearly show what is missing and what should keep on as it is.

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ANNEX

QUESTIONNAIRE

I am a post graduate student of social work in Addis Ababa University working on my final year Master's thesis. The thesis is concerned with analyzing the quality of Ethiopian higher education from the perspectives of the working environment. As a part of the working environment, this questionnaire is an invitation for you to be the part of this study. This questionnaire is just prepared to collect data regarding graduates' capacity and fitness in to the working environment and to see if their higher education experience is helping them in their work life. No personal information is required and the result of the study will not come back to you in anyway. This questionnaire has three parts and each of them has their own purposes. Thank you for your sincere cooperation and for your willingness to be a part of the research.

- Sector of the organization____
- Position in the organization____
- Years of Experience____
- Education status____

PART ONE

The purpose of this part of the questionnaire is to have a glimpse of your higher education.
Please put 'X' in the boxes.

1. Where did you finish your higher education? __________________________
2. What was your field? ____
3. How long was the graduation period? ________________________________
4. How do you rate your stay in campus?

   ☐ Excellent ☐ Very good ☐ Good ☐ Satisfactory ☐ Disappointing
5. Where does your cumulative GPA fall?

   ☐ 2.00-2.5 ☐ 2.5-3.00 ☐ 3.00-3.5 ☐ above 3.5
6. Are you happy with your grades?

   ☐ Yes, why? ____

____

☐ No, why? ____

____

PART TWO

This part of the questionnaire is prepared to understand your level of the following parameters after passing through higher education. There are 18 parameters that you are supposed to have after your life in campus. This particular part of the questionnaire will enable us to discover the degree of Ethiopian higher education quality in terms equipping students in the following skills. You can rate your skills as follows according to your level of the following skills and personal qualities. **Please keep in mind that these parameters are only concerned with your higher education experience**:-

- Excellent: - if your higher education helped you to have very high level of a particular skill.
- Very good: - if your higher education boosted your level of a specific skill.
- Good: - if your higher education increased your certain skill in a fine manner.
- Satisfactory: - if your higher education gave you enough of a particular skill.
- Disappointing: - if you don’t have that skill after attending higher education.
- Not measurable: - if you already have that skill before attending higher education and higher education did not add any value.

	Skills and capabilities	Excellent	very good	Good	Satisfactory	Disappointing	Not measurable
1	Computer and technical literacy						
2	Foreign language capability						
3	Application of technical knowledge						
4	Effective verbal communication						
5	Effective written communication						
6	Working effectively with others						
7	Working effectively on their own						
8	Attention on detail						
9	Business awareness						
10	Entrepreneurial skills						
11	Ability to process numerical data						
12	Adaptability and flexibility						
13	Positive attitude and energy						
14	Ethically and socially aware						
15	Reliability						
16	Personal commitment						
17	Professionalism and work ethic						
18	Ability to cope with work pressure						

PART THREE

This part of the questionnaire deals with your general opinion about the relationship between your higher education and your professional life. Please fill in the blank spaces when it is needed to.

1. Did you get the above skills and capabilities from your stay in higher education?

☐ Yes

☐ No

2. If No, why? ____

   ____

   ____

   ____

3. Did the higher education you attended to accommodated the above skills and personal qualities in its curriculum?

☐ Yes

☐ No

4. In general terms, do you think you are equipped with most of the above skills?

☐ Yes

☐ No

5. Did you face any problems coping up with your working environment?

☐ Yes

☐ No

6. If yes, what kind of problems?

   ____

   ____

   ____

7. Is your higher education helping you in your professional life?

- [ ] Yes
- [ ] No

8. Do you think anything is missing from Ethiopian higher education?

- [ ] Yes
- [ ] No

9. If yes, what do you think is missing?

____

____

____

____

10. What are your suggestions to make Ethiopian higher education better?

____

____

____

____

-Thank you-