DEMAND AND INTAKE CAPACITY IN SELECTED DEPARTMENTS OF POSTGRADUATE STUDIES IN ADDIS ABABA UNIVERSITY

BY
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A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN EDUCATIONAL PLANNING AND MANAGEMENT

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ABBREVIATIONS/ACRONYMS

CGPA- Cumulative Grade Point Average.

EdPM- Educational Planning and Management.

FBE- Faculty of Business and Economics.

GIS - Geographical Information System.

HECBP- Higher Education Capacity Building Programs.

HERQA- Higher Education Relevance and Quality Agency.

ICT - Information Communication System.

IT - Information Technology.

MBA- Management of Business Administration.

MOE- Ministry of Education.

NGOs- Non-Governmental Organizations.

NIU- North Illinois University.

OECD- Organization for Economic Cooperation and Development.

PHRD- Planning Human Resource Development.

RLDS- Rural and Local Developments Study.

SPSS- Statistical Package for the Social Sciences.

TEFL- Teaching English as a Foreign Language.

TGE- Transitional Government of Ethiopia.

ABSTRACT

The main purpose of this research paper is to examine problems existing in the current expansion of postgraduate programs in AAU. Moreover, to indicate possible intervention strategies for the university governing bodies and educational planners to alleviate the prevailing problems, regarding postgraduate programs. To this end, a descriptive survey method was employed. The study was conducted on purposely-selected twelve departments, which employs 16.6% of the total (72) departments. The data for the study were obtained from primary and secondary sources. Under primary sources: head of graduate studies and research office, two associate deans of postgraduate programs, and four department heads were selected through purposive sampling techniques. From these respondents data was gathered using structured interview. In addition, 40 % (75) of instructors involved in graduate programs and 40 % (272) of graduate students were treated using questionnaires. Stratified random sampling technique was employed to select instructors and graduate students. Under secondary data, documents that had information about applicants and accepted students for the last five years were assessed. To analyze the data, percentage, mean and chi-square statistical tools were used. Based on the analysis, postgraduate programs of AAU are increased their intake capacity of students than the past. Nevertheless, in various departments there is shortage of qualified instructors and inadequate classrooms, library and laboratory services. In light of these findings, the following recommendations were forwarded: MOE should expand postgraduate programs in other universities in order to share the burden of AAU. The capacity of the program should also be increased and strengthen in the areas' such as academic staffs, classrooms, libraries, laboratory service e.t.c. Again, the decision-making process should involve both instructors and students. Finally, financial constraints need to be resolved through the introduction of cost sharing in the program.

CHAPTER ONE

THE PROBLEMS AND ITS APPROACH

1.1. Background of the Study

Education has a major role for economic, social, political and cultural improvement of a country. It enhances higher standard of living and creates economically, socially and politically stable society. Furthermore, it is believed that education is a key to unlock the gate towards modernization. Concerning this Smith and others (1966: 39) stated that, "the task of education has often been stated as the guidance of the total growth and development of young people so that they will be competent, adjusted, and social minded citizens of the community and nation."

Improvement in education (Access, Quality, Relevance and Equity) contributes to the building of the social and economic wellbeing of a nation. Concerning this idea, Beare and Boved (1993:161) state that education has always made a significant contribution to the economic development of a country. Based on this point of view scholars asked, "If education failed, then what is not failed?" As we can understand from this general truth, improvement of education in all level enhances and facilitates the economic growth of a nation. That is why most countries pay special attention to educate their people.

Production, labor and entrepreneurial abilities are subjected to improvement by education in the widest sense; especially by higher education. It makes people more receptive to change and innovation (Kebede, 2002:2). Knowledge and technology become more important in economic development, only if it is backed by higher education and research. On the other hand, ignoring higher education will tend to result in suffering from relatively slow economic progress (Teshome, 2004: 2). To support the above idea, Gibbons (1998:5) stated that:

"Educational institutions are both the causes and the products of change in society. With institution of higher education this is perhaps most clearly evident in sustaining and increasing the rate of scientific discovery and its application in the emergence of modern technological nations. Such developments affect the structure of society, the range and kind of employment available, and the standard of living."

Higher education is a source of human resource required for leadership, management, business and professional positions that are important for economic and social development of a country (Teshome, 2004:2). As a country progress in civilization, the demand for higher education becomes greater. Human resource development, especially in building higher and middle level skilled labor, is very essential. Qualified manpower is needed for the leadership positions relevant to rural transformation.

In addition to this Aggarwal (1997:249) explains that especially postgraduate education and research a the key role in the activities of modernizing a country. Its objective is to take student to the threshold of new knowledge. Science-based technology, the explosion of knowledge, and rapid social and cultural change are the three main feature of modernization. These features of modernization could be well developed through postgraduate education and research. Therefore, every institution, which provides postgraduate instruction, should have capable staff, which actively participates in research, adequate research facilities in terms of laboratory equipment and research journals.

In Ethiopia, Modern Higher Education is a recent phenomenon. It began with the establishment of the University College of Addis Ababa in 1950 following the approval by the then government of Emperor Haile Selassie. Its main objective was to provide education in the fields of Art and science with certificate level. (Amare, 2005:9).

Following the establishment of by the University College of Addis Ababa, other institutions, to train students in Diploma and Degree programs, were opened in deferent parts of the country. For instance, the College of Agriculture and Mechanical Arts, as well as College of Engineering in Addis Ababa; Institute of Building Technology, Gonder Public Health College, Theology College of Holly Trinity, Kotebe College of Teacher Education and the Poly Technical Institute at Bahir Dar were opened in 1960's (Higher Education, 1981 E.C cited in Abebaw, 2001:14)

After the 1960's, only little progress was made since the introduction of the Ethiopian Education and Training Policy in 1994. Following this policy, the government implemented decentralization system to expand Higher Education indifferent parts of the country. Currently, there are twenty- one (21) universities in the country. However, concerning the access to postgraduate opportunity, AAU in comparison with other universities in the country has shown undeniable change in the expansion of new fields of the study. Yet it is not able to provide the access in greater number of trainees' intake.

1.2. Statement of the Problem

Increasing number of graduate students in varies fields of specialization has a paramount role in economic growth. However, the current situation of expanding graduate program is insignificant in comparison with the demand of the program. This is a critical problem in the process of developing higher-level skilled work force.

It is true that Higher Education is one of the key elements for the socio economic development, poverty reduction and good governance of a given country (World Bank, 2004). Higher education in general and graduate Programs in particularly are highly related with research. In this instance, Ethiopia remains the most educationally disadvantaged countries in the world.

The majority of the population lacks access to education. This truth has high significance when educational level increases (Rose and others, 1997:17).

Although efforts have been made to access an over, all level of education, enrollment at tertiary level is very low. Hedija (2002:9) by referring World Bank (2000), Human Development Report of World Bank confirms that the enrolment rate of students at tertiary level in Ethiopia is very low (less than 1%) as compared to other countries such as India (7%), South Africa (15%) and England (52%). Now days the government is putting great efforts to increase the enrolment ratio in postgraduate level. However, the number of graduate student in various universities is still insignificant.

According to data obtained from AAU Registrar Office (2006), there were 11,543 applicants for Graduate Programs in 2006/07. However, the University accepted only 2,106 of the applicants. This figure shows that only 18.2% of the applicants were accepted. This indicates that there is a significant gap between the number of applicants and the number of admitted students in the university.

In light of the above fact, the main objective of this study is to examine the major problems encountered in the postgraduate expansion program of AAU, which is designed in order to narrow the gap between demand for and intake capacity of postgraduate programs. Moreover, the specific objectives are:

1. To assess the trend of students applicants and accepted in various departments of graduate programs of AAU for the past five consecutive academic years (1995 E.C-1999E.C).
2. To identify departments, which have high number of students and low number of students and what are their reasons.
3. To identify the main factors that prohibits the university to improve the intake capacity for graduate program.

In line with this, the focus of this study was to obtain reliable answers to the following basic questions.

1. What was the trend of applicants and accepted students of graduate programs of the University in the past five consecutive academic years? (1995 E.C-1999E.C)
2. What are the reasons for some departments to have high number of graduate students than the others?
3. To what extent are the academic staff and managers sufficient and capable for carrying out the expansion of graduate program?
4. To what extent are the University inputs and facilities sufficient for expansion of graduate program?

1.3. Significance of the Study

The study had the purpose of indicating the major determinants balancing the demand, and intake capacity of graduate programs. Expansion of higher education in general and graduate programs in particular is important in developing human resource especially to higher-level trained personnel. Improvements in technology and economic productivity highly related with investment in human resource development. Such consequences follow from the employment of increasingly better–educated access and trained personnel in productive activity. Therefore, an increase in Higher Education enrolment ratio has a positive impact on economic growth of developing countries (Teshome, 2004:4).

In the light of the above notion, it is quite convincing and credible to conduct systematic investigation on the problem of relating demand for and intake to graduate programs. To meet this, the study thought to have the following significance.

1. The study indicates the past five-year trend of postgraduate programs of AAU and the gap between demand and supply of programs.

2. By providing feed-back to the policy makers, planners and stake-holders on major issues, the findings of the study helps them to be aware of the major problems related to demand for and intake capacity to the graduate programs. It also helps to take some corrective measures accordingly.
3. It also enriches the reviews of literature and encourages other to undertake further study in the field.
4. It provides some alternative solutions or recommendations that may help while planning the intake of graduate student in various departments and improvement of their equilibrium.

1.4. Delimitation of the Study

This study is delimited to demand (applicants) and intake capacity in selected graduate programs, particularly masters programs. Specialty Certificate, Specialty Diploma and PhD programs were not included in the study. It was because the currently demand of masters degree is very high in comparison to PhDs and special Diplomas demand.

Addis Ababa University is selected purposely to be the subject of the study. This was because; AAU is the oldest and the largest university that attempts to be graduate University than the rest of the Universities of the country. Moreover, it has varies fields of specialization.

1.5. Limitations of the Study

Throughout the process of conducting the study, the researcher faced many problems. The major factors that have a direct impact on the study are; uncooperativeness of department heads, and postgraduate instructors to respond to items that demands time (like open-ended items and interviews) and shortage of relevant reference materials, to the topics under study.

1.6. Methodologies and Research Design

1.6.1. Method

The aim of this study was to examine the major factors that are influencing the expansion of graduate programs regarding high intake of students in various departments of the University. To this end, descriptive survey method was found to be appropriate. The reason was that, it helps to show the current condition as it exists, and enables the researcher to reflect on the current mismatch of demand and intake to graduate programs of Addis Ababa University. Descriptive method is appropriate to obtain information about the strengths and weaknesses of the case. It also, enables to find out possible solutions through the analysis of variable relationships. Thus, it can bring further recommendations for the problems identified (Best, 1993:105).

1.6.2. Source of Data

The data for the study was obtained from primary and secondary sources. Under primary source, data were gathered from Addis Ababa University Officials (Directors of Graduate School and Research Office, Associate Deans of Postgraduate programs, and Heads of Departments) by using structured interview. Data from Instructors and students who were involved in graduate programs 2006/07 are gathered through questionnaires.

Addis Ababa University officials were selected depending on their direct involvement in the planning and implementation of the program. Associate Deans of Graduate Programs, Departments Heads, Instructors and Students were chosen based on their closeness to the issue related to graduate programs.

Under the secondary sources of data, relevant documents, which constitute regulations, guidelines, strategic planning, and statistical data of students in particular, were assessed.

1.6.3. Sample and Sampling Techniques

Currently about 72 departments are offering graduate programs through the School of Graduate Studies of Addis Ababa University (Registrar office of AAU, Application form for postgraduate programs; 2006). The study focuses only on twelve selected departments based on their demand and intake capacity. This constitutes 16.6 percent of the total. The following table shows sample distributions of respondents.

Table 1: ***Distributions of Sampled Respondents***

No	Departments	Total No of Instructors.	Sample No of Instructors		Applicants for 2006/07	2006/07 Total Students No.	Sample of the Student	
		No	No	%	No	No	No	%
1	Archaeology	7	3	43	10	5	2	40
2	Public Health	11	4	37	480	53	21	40
3	Multilingual and Multicultural	13	5	38	18	14	6	42
4	Linguistics	9	4	44	36	29	11	38
5	TEFL	36	14	39	218	122	49	38
6	Educational Planning and Management	8	3	38	306	75	30	40
7	Regional and Local Development Study	10	4	40	602	43	17	40
8	Management and Business Administration	11	4	37	908	36	14	39
9	Civil Engineering	16	7	44	325	67	29	43
10	Environment Science	19	8	42	356	111	44	39
11	Biology	36	14	39	262	108	43	40
12	Sociology	12	5	42	568	16	6	38
	Total	**188**	**75**	**40**	**4089**	**679**	**272**	**40**

Source: AAU staff list of 2004 and AAU registrar office (2006)

1.6.3.1. Sample

The respondents of the study were from the selected graduate programs. These are the Head of Graduate Studies and Research Office two (2) Associate Deans of postgraduate programs out of seven deans, (this employed 29%) and from12 Department Heads, four (4) of them were chosen (these are 33 % of the total).

75 instructors were selected from the total 188 instructors of samples departments (this was about 40 %). Among 679 students of selected departments, 40 % of them were chosen (and this constitutes bout 272 students).

1.6.3.2. Sampling Techniques

Departments were chosen based on purposive sampling. This was due to the following four reasons:

a. The research intends to show the trend of graduate programs for the past five consecutive years (1995E.C-1999E.C). Thus, departments that began their Program relatively earlier than the majority of the departments were chosen to find the above-mentioned trends. These are Educational Planning and Management, Linguistics and Civil Engineering.
b. The study aimed at identifying departments, which have a high demanded in terms of applicants, and describing the reasons for this demand. Thus, departments with high number of applicants, which were included as samples, are Management and Business Administration, Regional and Local Development Study, Public Health and Sociology.
c. To the contrary, other department had low number of applicants. This was also regarded as one of the reasons for the selection. Therefore, the following were chosen among these fields of studies are Archaeology and Multicultural and Multilingual.
d. Relatively same departments use to accept large number of students. What was special with these departments? To investigate this question, departments of Teaching English as a Foreign Language (TEFL), Biology and Environmental Science were selected.

Respondents were selected based on purposive, and stratified random sampling technique. Purposive sampling was employed for Graduate Studies and Research Head, Associate Deans of postgraduate programs, and Head of Departments. Purposive sampling technique was also used to incorporate first

year graduate students only. This was because; second year students were not available during data collection.

Stratified random sampling technique was used to secure relevant and reliable data from Instructors and Students from each selected departments with consideration of gender. In addition to this, using stratified random sampling technique is believed to have potential advantage to maintain the inclusion of sample fields.

1.6.4. *Data Gathering Techniques/Tools*

In the process of this study, data were collected through primary and secondary sources. The primary data were gathered by employing the research questionnaire and structured interviews.

Accordingly, two sets of research questionnaires constituting both close ended and limited open-ended question items were developed to obtain necessary data. One set of questionnaire was prepared for instructors who are involved in graduate programs in selected departments and the second set of questionnaire was for graduate students. Besides, structured interview were conducted with the Head of Graduate Studies and Research, two Associate Deans of postgraduate programs and four Department Heads.

Secondary sources were assessed to observe the trend of applicants and accepted students in various postgraduate departments within the past five academic years (1995E.C-1999E.C), and to get information about academic staff size in each department.

Before preparation and distribution of the final questionnaires to the respondents, pilot test was conducted. About fifteen (15) questionnaires to instructors and thirty (30) questionnaires to students were distributed. Based

on the pilot test result, all the necessary amendments such as clarifying vagueness, avoiding irrelevant question and adding new question items were made based on the feedbacks obtained from the respondents.

1.6.5. Methods of Data Analysis

Information obtained through the open-ended question items, structured interviews and documents were considered during data interpretations in accordance with the items in the questionnaires. Then depending on the nature of the questions, different statistical tools such as percentage, mean, and chi-square test were employed for data analysis to explore and describe differences and similarities between respondents of different groups.

Percentage was used to analyze various characteristics of respondents such as their personal background. The chi- square (χ^2) of association was used to establish the difference between the respondents (instructors and students) opinion in their response to item given. The mean score was also used to identify which of the item is rated above average to be considered as the member of major factors, which highly affect the graduate programs of AAU. Moreover, to test whether there is significant difference between respondents given by two groups to major factors that influence intake of the graduate programs. To tolerate errors that came due to chance the 0.5 level of significant was used. To analyze data, SPSS soft were computer program was employed.

1.7. Definitions of Terms

Academic staff: - School, College of University staff with teaching responsibilities, as opposed to administrative responsibilities (Terry and Thomas, 1978:9).

Academic year: - is annual session or period between new intakes of students in a university, college, school or other academic institution (Terry and Thomas, 1978:9).

Program: - A selection of one or more courses (planned series of learning experiences) or a combination of courses, usually chosen from a syllabus with an expressed or implied aim (MOE, 2006:133).

Postgraduate/graduate program: - is training, or specialization program offered under the schools of graduate studies to students who already have their first degree. Completion of this program is certified by awarding either a Masters Degree, certificate in Medicine, and PhD. Degree in very few institutions (MOE, 2006:133).

Demand (applicants):- number of students who wish/apply to enroll in college or university (Hills,1982:18).

Intake capacity: - number of students that can be accommodated by the University, College, or School to each academic year by a building, or by room and other facilities (Good, 1973:78).

1.8. Organization of the Study

This study consists of four chapters. Chapter one deals with the problems and its approach and the research methodology. The review of the related literature is treated under chapter two. The chapter three is provided the analysis and interpretation of data. Finally, in chapter four summery, conclusions and recommendations are presented.

CHAPTER TWO

REVIEW OF THE RELATED LITERATURE

2.1. The Role of Higher Education for Economic Development

Education has direct contribution for economic growth through providing of skill and techniques design to improve competencies. The direct impact of education on economic development is labeled in terms of the quality and quantity of labor force (Forojalla, 1993:7). Sustainable development and competitiveness in the global world of a country is mostly affected by the quality of human resource. Teshome (2004:1) has explained this, "The importance of educating people to ensure a country's continuous and is unquestionable." Forojalla, (1993:107) further stated that, "it is now generally accepted that it is the human resource of a nation, not its capital or material resource, that ultimately determine the pace and character of its economic and social development."

Higher education has significant role for the development of the necessary human knowledge and skill. It is a base to economic growth and poverty reduction, which ultimately ensures success in human development. Henderson (1966: 212) elaborate that, higher education has been through of primary as an opportunity for the individual to prepare himself/ herself for better life and for an occupation. Furthermore, it has a critical role in developing democratic cultures and improving national productivity, having a direct influence on poverty reduction and laying foundations of good governance. The training concept and responsible citizens as well as the support to national innovation system through research are essential to determine a country's competitiveness and living standards.

According to Teshome (2004: 2), one of the objective of higher education institutes is to provide society with competent work force who trained by various professions. For instance, in leadership, management, business and

professional positions that are important for economic and social development. In addition to the above objective, it is the major area for scientific research, innovation, generates and spread out knowledge. People's productivity positively correlates with level of education. Thus, higher education increases people's productivity as well as competitiveness. (Dhest, 1979:122) confirm that:

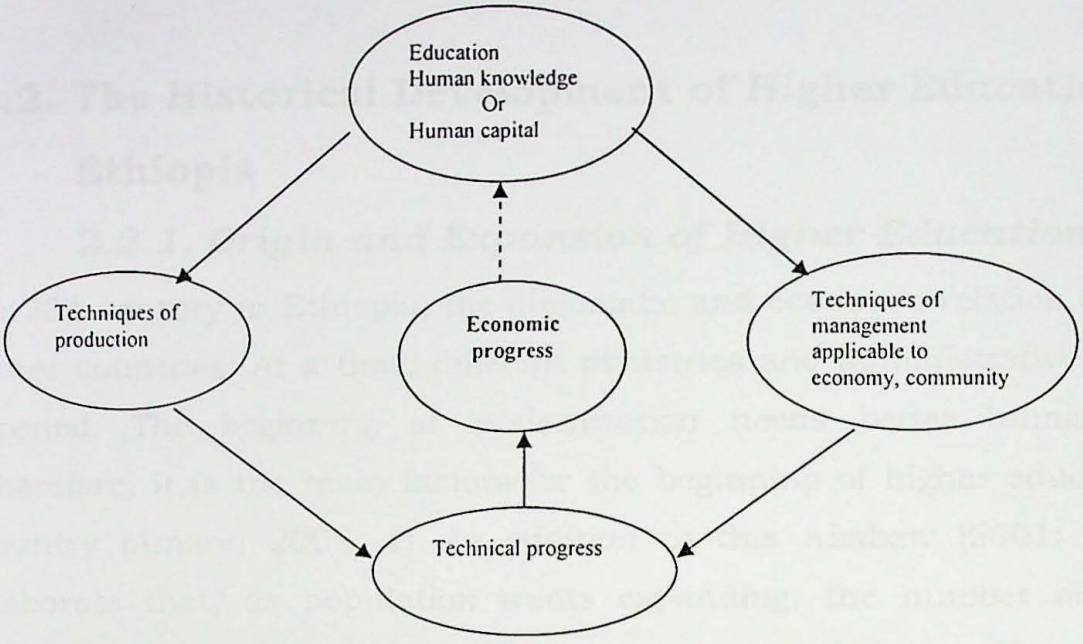
> *"Education and training are the most important investment in human capital. Knowledge is capital; it can be produced only by expanding some efforts and reader service over time...education and training improve the quality of human resource wile health and other environmental factors help to improve the quality as will as increase the quantity of human resource."*

As NIU Outreach (2005:5) described that higher education, have diverse roles. It create a quality workforce by growing, training, and attracting the finest talent, support current business and industry, improve learning and teaching from pre-school through graduate school, take strong and visible roles in regional initiatives, disseminate research and promote technology transfer, enhance the technology infrastructure, promote livable communities and employ a diverse workforce.

In line with the above contribution of higher Education for the over all development of a country, Gibbons (1998:5) add other contribution; higher education is important to build acknowledgeable society, to achieve the advancement and application of knowledge for social and economic progress. Dhest (1979:7) further elaborate that, a country to develop should put to effective utilization of knowledge and skill of its people. It also technological growth must pay attention to the development of human resource through education. This is one of the main bases of capability in science and technology. Innovation, transmission and reception of knowledge need well-developed human capacity.

The following diagram shows the interdependence of education and economic growth.

Figure 1. Interdependence of education and economic



Source: adopted from Dhest (1979), Human formation and its utilization.

The figure depicts that, investment on education create knowledgeable, skill-full and innovative human resource. Education guide and modifies the activities of human beings in various way and diverse areas of activities. It also modify human behaviors in all aspect by developing his mental powers of thinking ,planning and evaluating so that he is able to lead very effective life, promoting social welfare with his process and development. Application of technique of production and techniques of management to economic growth emanate from human knowledge. Increasing of production will lead to technical progress. The cumulative effect becomes economic growth. Economics becomes integrally connected with education. Inversely economic progress creates financial power to invest on education.

Therefore, expanding higher education and research in developing countries has a significant role in poverty redaction activities. Teshome (2004:1) further explain that, "higher education will put a country in a sustainable path to development and implement of the livelihood of the population. It is no longer a luxury but essential for survival in the global knowledge-based era".

2.2. The Historical Development of Higher Education in Ethiopia

2.2.1. Origin and Expansion of Higher Education

In 20th century in Ethiopia, the diplomatic and economic relation created with other countries. At a time, different ministries and administrative offices were opened. The beginning of modernization needs better human resource. Therefore, it is the main factors for the beginning of higher education in the country (Amare, 2005: 1). In addition to this Ababaw (2001: 12) further, elaborate that, as population wants expanding, the number of student in various level of education was becoming greater and greater from year to year. During that time the need of tertiary education becoming high, and the access was very limited, only some student especially from the ruling class sent abroad for further education. Generally, pressures from secondary school graduates and the motive for highly skilled manpower initiate the establishment of higher education institution.

According to Amare (2005:9), the first modern higher education institution established in 1950, approved by the Emperor Haile Sellassie I, named by University College of Addis Ababa. Its main objectives were to give education in arts and science with certificate level. Then, it has promoted its programs from two years of four years and started to graduate students with bachelor degrees. In addition, different Ministries opened to train expertise to use for their objectives. For instance, the Ministry of Education established Building and Engineering Colleges and Fine Arts and Agricultural Colleges by the Ministry of

Agriculture and Gonder Health College by the Ministry of Health (Higher education, 1981E.C cited in Abebaw, 2001:14).

According to Amare (2005:20), the Haile Sellassie I University (HSIU) was created later in 1961. Those Colleges, which established by different Ministries, transferred into this University. The main purpose of the new University was to coordinate and avoid duplications, and rapid production of educated and trained human resources and the other to give the mandate to coordinate and supervise the academic activities of present and future colleges, and to use resource effectively. During its transition to a university, the following six colleges become constituent as parts of Haile Sellassie I University HSIU.

- The University College of Addis Ababa (UCAA).
- The Imperial College of Agriculture and Mechanical Arts (Alemaya).
- The Gondor Public Health College
- The Imperial College of Engineering
- The Ethio-Swidish Institutes of Building Technology
- The Theological College of the Holy Trinity.

Abebaw (2001: 17) by referring the report of Higher Education Commission (1976:9) stated that, during Imperial Government, because of few Higher Education Institutions and their capacity very insignificant, enrollment rate was very low. In 1972, the higher education enrolment ratio of the total population between the ages 20 to 24 was 0.29 present.

Until the 1974, Addis Ababa University and Asmara University were the only two higher educational institutions. As the need for more higher education increased, the Ethiopian Military Government took some measures to expand the higher education. College of social science, Faculty of Business and Economics, Faculty of Venternay Medicine were established as part of Addis Ababa University. Where as Awasa College of Agriculture, Jimma Institution of

Public Health and Arba Minch Water Technology Institute were established. Alemaya College of Agriculture upgraded into a University level. Addis Ababa Commercial School, Bahridar Polytechnic Institute, Ambo and Jimma Agricultural School rose in to Junior Colleges (Abebaw, 2001:17).

Following, the coming of the Government of the Federal Democratic Republic of Ethiopian (FDRE), a decentralized system of administration implemented. Regional states give great autonomy. In addition to these facts, fast growth of student population, expansion of private investment agencies and other political economic factors necessitated for the expansion of higher education. Thus, to accommodate these factors the number of universities from only two few years ago to nine in 2005. Recently, the government opened another thirteen universities to make tertiary education accusable and increasing enrollment rate (HECBP, 2006:7; Rayner and Tesfaye, 2005:16-17).

2.2.2. Objectives of Higher Education

At the beginning, higher education had no clearly defined and specified objectives. Because, higher education was started in Ethiopia when it's positive effects on the country's economical, political, social and cultural benefits was not well realized. Generally, its main objective was to produce, highly skilled personnel (Abebaw, 2001:15).

During the Derge regime, commission of higher education institutions was established. The commission organized to manage, direct and control the institutions. After the establishment of the commission, the higher education had its own objectives. The following were major objectives: teaching and disseminating the philosophy of socialism, produce the necessary skilled labor, conducting research, to lay the foundation for science and technology, arrange in-service programs for different employees and develop culture of the country,

make free from imperialism and reactionary substances (Department of Higher Education1981E.C, cited in Abebaw, 2001:15).

In spite of, higher education has no any short, middle and long-term plans. They could not have effective contribution towards the country's development and improvement of the social life. Therefore, to alleviate these problems Higher Education proclamation No 351/2003: 2237 states the following Higher Education Objectives.

- *"Produce skilled manpower in quantity and quality that will serve the country in different professions.*
- *Expand higher education services that are free from any discrimination on grounds of race, religion, sex, politics and other similar grounds.*
- *Provide equitable distribution of higher education institutions.*
- *Lay down problem-solving educational and institutional system that enables to utilize potential resources of the country, and undertake study and research.*
- *Provide higher education and social services that are compatible with the needs and development of the country.*
- *Lay down an institutional system that ensures the accountability of the institutions.*
- *Ensure the participation of all those concerned bodies in administration decision-making to create and promote participatory culture.*
- *Make efforts to develop and disseminate the culture of respect tolerance and living together among the people."*

2.3. Benefits of Investing on Higher Education

Education is needed for people to benefit from scientific advancement as well as to contribute to it. The development of knowledge is a link between scientific advancement and the way in which education has facilitated. Krichels (2005:1) explain that investing on higher education can bring considerable benefits to both individual and society as a whole. In term of global economy, the importance of higher education becomes paramount as knowledge an increasingly key role in economic development. Supporting this idea, Neira

(2006:16) point out that, birth rate and education has negative correlation. On the other hand, correlation between fertility rare and illiterate population is positive. Merisotis (1998:3) clarified benefits of higher education as public economic, privet economic, public social and privet social.

Public economic benefits result in the overall development of the countrywide economy, or major sector of the economy. These benefits have wide economic, fiscal and labor market effects. Some of the public economic benefits of higher education include increased tax revenues, greater productivity, increased consumption, increased workforce flexibility and decrease reliance on government financial support (Merisotis, 1998:3).

A private economic benefit is the most commonly discussed category of higher education benefits. Steven and Weale (2003:1) indicate that, the income of individual can depend on their level of education. Commonly a person who has better education level earns more than without. Private economic benefits are those benefits that have economic, fiscal, or labor market belongings on the individuals who have attended higher education. It includes higher salaries and benefits, increase employment chance, higher savings levels, improved working conditions, and increasing personal or professional mobility (Merisotis, 1998:3).

According to Merisotis (1998:3) public social benefits are benefits that accumulate to groups of people or to society broadly. That is not directly linked to economic, fiscal, or labor market effects. Such benefits include reduced crime rates, increased charitable giving or community service, increased quality of civic life and improved ability to adapt to and use technology.

Private social benefits are benefits that accrue to individuals or groups that are not directly related to economic, fiscal, or labor market effects. Examples of these benefits include; improved health or life expectancy, improved quality of

life for offspring, better consumer decision making, and increased personal status (Merisotis, 1998:4).

In addition to this Kathleen (2002:1) elaborate that, it is important to examine benefits and rate of return of higher education for both individual and society, before investing over it. In broaden sense; Kathleen divided benefits of investing on higher education into economic and social benefits. The economic benefits mostly related to the direct increment of tax and revenue for a nation. On the other side social benefit, college graduates enjoy including high level of saving, improving quality of life for the offspring, better consumer decision making, more hobbies and leisure activities. In addition, college attendance, decrease prejudice, enhances knowledge of world affairs and enhances social states. There is positive correlation between completion of higher education and good health, not only for oneself, but also for family. Increasing in education level correlated with the lower mortality rates.

The previous idea offers the diverse benefits (public and private, economic and social) that can be related to investment in higher education. Merisotis (1998:4) indicated that, "responsibility of disseminating information about higher educations' benefits is a shared one, involving colleges and universities, research organizations, the media, and governments." The collaboration of these entities can link the gap in public and policy maker understanding about the outcomes of higher education, and lead to more rational, and long-term consideration of government and social investment in postsecondary learning.

2.4. Demand for and Supply of Higher Education

2.4.1. The Demand for Higher Education

The goals of every society are to create conducive living environment, so, these can be achieved only by the application of human skill and effort. It is argued that one of the primary stages in the human resource planning process is to

estimate what will be required in terms of professions and number of people to attain the goals (Margaret and Cardine, 1999 cited in Kebede, 2002:3).

The state has responsibility to provide educational service to its citizen, as far as every human person has a right to be given a chance to develop his mind. Demand for educational service become increase as the population growing up, as the economic development sustain and the education service supply in every level become easy to join. "The elasticity of demand for education services is grow as the social and technical environment becomes more complex, and the time available for free activities grow" (Papi,1966:6).

The demand for schooling is inclined to vary according to the type of school. The causes, which concern primary schools, are different from those which concern higher education. For instance, the family's poverty or inaccessibility of school may prevent children form attending primary school. At the secondary or higher education, in addition to the above reason, unsuitable curricula that are unmatched with the real needs of country may be accountable for a low schooling rate (Papi, 1966:7).

If secondary schools have enough capable teachers, reduced large classes, and they have clear practical objectives and goals, then the students who leave form the school become academically strong. Thus, the number of university graduates also shows positive change. It argued also that reorganization of secondary schools would help to reduce the differences between the numbers of those who enroll and the numbers who graduate in each faculty. In other words, to reduce the waste of money and effort involved in the failure of students to graduate (MOE, 1998 cited in Kebede, 2002:4). In general, in order to solve the very complex problems of education, it should be noted that clear thinking and a comprehensive consideration on the diverse basic factors in the demand for education in every type of school, are needed.

2.4.2. Supply of Higher Education

Development of human resource has undeniable role in economic growth of a nation, especially for developing countries. Amongst a number of factors of long-term economic growth by most developing countries, the development of human resources has been distinguished as a challenge. Since the early 1970s, the development human capital got greater attention and priorities. It is the only way to reach in sustainable development. Consequently, these needs of high-level skilled human resources also came into real only through educational services especially higher education (Analoui, 1999 cited in Kebede, 2002:5).

According to Papi, (1966:8) education is public and private goods or service, which through its implied consequences affects not only those who directly benefit by it, but also society as a whole. It is a key factor in the practice of economic and social change. Therefore, all citizens should contribute towards the provision of this community service. Moreover, almost everywhere the government largely takes for granted this responsibility. If private enterprise alone were responsible for these services, society would run the risk of receiving of kind of education not in line with national interest.

Education and training constitute a process of continuous improvement by means of which each individual in a society is placed in a position in which be can develop his own skills. PHRD (1996) as indicated in Kebede (2002:5) stated that, three important features which deterrence is the supply of education services. Time precedence, Unity, and complementarily, in the sense those due proportions must be observed in the supply education service.

2.4.2.1. Time precedence of supply

Time precedence in the sense that the service must be available before it is needed. Robinson and Viazey (1966:9) stated time precedence of supply means

providing in advance accommodation for the various types of school, and training teachers in sufficient number and quality to meet the requirements. Unfortunately, when the demand for educational services increases, in many countries, a serious shortage of teachers become apparent. "It is obviously obscured to seek to setup new schools, as often happens, without allocating sufficient finance for the training and subsequent recruitment of various categories of teachers". In every education level, the needed accommodation should be prepared before it is needed. Kebede (2002:7) further elaborated that:

> *"Time precedence in the supply of education services needs the preparation, based on demand projections, of adequate accommodation, such as; equipment, qualified academic staff, adequate financial support, all of which got to make up an intake capacity of educational service"*

2.4.2.2. Unit of Supply

The second factor affecting the supply of education services is its unity. It referees the access of educational from primary level to higher education in a nation. The public has a responsibility of crate matching between elementary school, secondary school and higher education. Effort made to increase the enrollment rate in the elementary school, also needs to expand in the rest level of educational service. It is argued that only in this way can every individual be assured his light to enjoy, with the limits of his ability, the different level of education (Aaloui, 1999 cited in Kebede, 2002:7).

According to Robinson and Vaizey (1966:12), unity of supply of educational services should basis on the careful educational planning. In other words, the supply of educational services is unitary; it does not lead it self to differentia development of separate levels. To rapid an expansion at one level with out unity of supply, tend to provoke, on the one hand deterioration in the quality of services offered at the level. On the other hand, it crates also serious damage at

other levels of instruction. Educational service with out unity force to use less qualified teachers, classrooms will be overcrowded and equipment scarce.

2.4.2.3. Complementarily of the Components of Supply

Complementarily is the third component that has implication for the supply of education services. Academic staff, equipment, and non-teaching staff are same its component. All these elements have to be available in fixed proportions or at least in proportions, which can very only with in narrow limits. Modern education involves not only classrooms, books, and the like, but also, non-teaching staffs such as research workers, technicians and secretarial staff. All of whom are needed in proportion to the number of students. Usually complementarily is not taken into consideration, with the result that even planning made in good faith to remedy some particular shortcomings end up by approaching the condition (Robinson and Vaizey, 1966:12).

Based on the above facts, the supply of education services will affect if even only one of the above-mentioned elements varies. Otherwise, the supply will remain insufficient.

2.5. Forces for Expansion of Graduate Programs

According to proceedings of a National Science Foundation (NSF) workshop held in 1998, focuses for graduate education expansion and reform include the following factors. These are demographic, economic, technological and social changes. These forces are altering the nature of and the students who enroll in graduate programs.

2.5.1. Demographic Force

The demand for graduate education is rising with relation to magnification (i.e. the enlargement of the population that undertake a university degree) of bachelor-level programs. Across Europe, involvement rates of the college- age in

the university have more than doubled in the last 20 years, from seven to 17 present. Japan has over equator of its young people completing bachelor degrees, and the United States about one-third (NSF, 1998:8).

2.5.2. Economic Force

Economic factor can influencing change in education programs. The cost of education, increasing faster than the cost of living, requires collaboration between and among research centers. As the NSF report, indicates economic forces for reform in the United States and Europe are the pressures from national and state funding sources to produce graduate students who will contribute to economic development. In addition Asian countries given their conviction that economic growth is dependent on science and technology, knowledge and its connection to production are accelerating their with in country to education scientists and engineers at the doctoral level (NSF, 1998:9).

2.5.3. Technological Force

Technological change is the main force in expansion of higher education. Regarding this, Mekasha (2005:118) stated that, "The development of new technology and the globalization of the world economy have created high demand for workers with computer, communication, and other occupational skills that can be acquired at college or university." High productivity rendered by implementing innovation, this innovation become motivated through higher education and research. Universities are the place were basic research performed (NSF, 1998:9).

2.5.4. Social Force

Every countries educational investment policies often reflect the social demand for education, it taken note of labor needs for economic development. A social demand oriented education investment policy generally leads to a supply of

qualified workers. Social-demand can be compatible with the policy goal of income redistribution. Its pressure is towards higher levels of education (Kathleen, 2002:1).

2.6. Input Factors that Affect student intake Capacity of Graduate Studies

2.6.1. Academic Staff

Human resources are the lifeblood of an institute. They help to visualize the kind of service the school can render, to develop and implement planes needed to achieve the goals. As a result, in any educational organization, academic staff has always been described as one of the most crucial resources. Evident to this Adams (1987:35) stated that "in school people matter more than surroundings, buildings, equipments, materials and finance."

Higher education has more important objectives to generate and prepare graduates for high-level leadership and responsibility positions than any other level of education the importance of instructors is more critical at tertiary level institution. Moreover, the academic members of staff are a central and vital input at high-level educational institutions. Therefore, at the tertiary level educational academic institution are staff is the main party of the higher learning institutions and their quality does affect the effectiveness of Universities (Ayalew, 1995: 150; ESAURP, 1987:62 and Nmah, 1994:13).

The relative strength and adequacy of academic staff in higher learning institutions, among other things, is measured by the following input factors: academic staff qualification, the student/teacher ratio, the existence of full time academic staff (Aspin, 1994).

2.6.1.1. Academic staff qualification

All other things being equal, the intake capacity of graduate programs highly affected by number and equality instructors. The quality of instructors may be expressed in their qualification and length of training for specific job (Toure, 1998:77).

A staff member with higher academic qualification and appropriate professional experiences is likely to instruct a course of handle a particular study program better than one with lower qualification and shorter relevant professional experience. This is based on the assumption that one instruction with a high degree qualification has had longer exposure to a wider range of relevant factual knowledge, intellectual stimulation and practical skill, and of which can be communicated to his/her students (ESAURP, 1987:69).

The required academic staff profile of Ethiopian higher education institution is provided under the standard of set by the MOE for the establishment of colleges. According to the MOE, (1999 E.C, 36-39), the minimum instructor staff combination in higher education has been prescribed as follows: Staff composition for diploma programs: 50% with master degrees, and 50% with bachelor's degrees. Moreover, for Degree, 30% with doctor degree, 50% with master degree, and 20% with bachelor's degree. Similarly, staff composition for graduate program should be 75% are at least assistant professorship, a minimum 20 % are at least associate professorship and no less than 5 % are full professorship (HERAQ, 2006: 1-5).

2.6.1.2. Student-academic staff Ratio

MOE (1996:43) indicated that, student-academic staff ratio is appropriate education and the status of instructors in higher learning institutions. It is an important indicator of intake capacity for higher education institutions. A high student instructor ratio may mean an instructor has to guide more students,

which are not effective pedagogically as the very essence of learning occurs where close contact between the instruction and the student is. In terms of academic staff-student ratio, the group stated a number of actions. For instance, the low student-academic staff ratio either implies over staffing in certain Universities or the need to attract more students. The reverse action may true in the case of high ratios, which is a situation of understaffing. Moreover, this in turn calls for either employing new instructors or placing limit on the student numbers (OECD, 1992; Astin, 1991).

Although, there is no standard student-academic staff number ratio which is adopted for all higher learning institutions, different tertiary level education institutions practice different ratios. In Ethiopia, according to MOE the established instructor student ratio for lecture classes and technical and laboratory classes are 1:20 and 1:15 respectively (MOE, 1991:14).

2.6.1.3. Student/Full-time Academic Staff Ratio

The ratio of student full time academic staff members is also an indicator of strength of Universities. As a minimum requirement, in Ethiopia 70 percent of the total population of higher education instructors should be full time workers. The student-teacher ratio in the University is around 30: 1 as against of 7: 1 in the UK universities (Derebsa, 2004:99; MOE, 1996:45 and MOE, 1991:15). Similarly, student-instructor ratio in postgraduate level should be around 10: 1 (HERQA, 2006:4).

A high student part time ratio may indicate a large burden placed on fulltime academic staff and perhaps it indicates high level of dependence on part-time lectures. Moreover, part-time instructor should lower levels of involvement in curriculum, instruction and research work (Freeland, 1998:15).

2.6.2. *Instructional Materials, Technologies, and Facilities*

Most of education facilities crucial factors for innovation and knowledge based global economy. Instructional materials are the devices with instructional content of function that use for teaching process. Student and teacher interact for teaching and learning process with instructional material. Amare (1999:53) described that "instructional material as the instrument with which a teacher teaches and from which students learn." According to Doherty (1994) it include: books, supplementary reading materials, audiovisual and other sensory materials, scripts for radio or television instruction, instruction sheets, and package sets of materials for construction or manipulation, overhead projector, computer or internet access and like.

The physical environment in which the formal teaching learning occurs ranged relatively from modern well equips to open air-gathering places (UNICEF, 2000:5). The University infrastructure includes classrooms study rooms, library, laboratory, offices, pedagogical centers, conference hall and other related facilities. These facilities are required to be proportional to number of teachers and students in University (MOE, 1999EC:37).

2.6.2.1. *Library and Laboratory Facilities*

According to Dean, (1972: 28) library is regarded as the reception center for the assembly of communication of every description covering books, pamphlets, newspapers, periodicals, maps, microfilms, photographic slides, audio taps and video taps. Higher education students should not only be stuck to their lecture notes if they are in a position to develop their knowledge and skill for a better advancement. In stead, they use reference materials. Reference materials are additional provisions supplied for Universities to be referred by students and instructors too.

Every well-organized library, large or small; public, college, school or special, includes for major divisions: acquisitions, preparations, circulation and reference. Supporting this Engelhard (1949:123) library is not only a depository of books with formal seating, but its function has so changed that it must be seen as a laboratory for research and discovery; and it must be adoptable to new changes in educational philosophies, methods, and equipment. In addition, Engelhard (1970:129) stated that, to day's library should provide areas for creative, independent study, and for easy change of ideas. It should contain seminary rooms for instruction in techniques of research and small group interaction. It should house a wide variety of resource materials.

Moreover, Library building should have sufficient space, silent, well-ventilated, adequate light, and take in to account the new development of IT. It should also be acquainted with adequate and relevant reference materials in terms of number and varieties. Besides, it should be opened for a longer time to give sufficient service for both instructors and students (Edmeson and Roemer, 1956:410; MOE, 1995:6).

In line with library service, higher education needs laboratory. Laboratory is "a room or other portion of a Universities building in which teachers and students may carry on experiments: commonly, a special room in the colleges consisting special apparatus and equipment for use in performing experiments or exercises and working out problems" (Good, 1973:334). Another facility's useful particular for science teaching. To acquire specific knowledge systematically in depth, the most important means of teaching is a laboratory work that is gives an increased emphasis in enhancing student involvement in scientific investigation. The emphasis arises from the view that science cannot be effectively learnt from book and lectures alone and neither can simple telling students about science teach it. Laboratory learns had dual purposes. It gives the students the subject knowledge, on one hand, and it provides the students on understanding of scientific investigation, on the other hard.

According, MOE (1995:3) outlined three fundamental laboratories that should be considered as the standard. Each laboratory section is entitled to have a preparatory, a demonstration, and a storeroom. They have to be also richened with all the necessary chemicals and equipments necessary for demonstration of the subject. In general, if sciences to progressed, higher education institutes should be supported by a laboratory work with that is adequately fashioned by the necessary equipment and materials. Furthermore, library and laboratory should be well organized and net worked each other to facilities the instruction.

2.6.2.2. Classroom

Classroom is usually visualized as a room with table, chairs, a blackboard or a whit board, removable furniture and a video set in general (Henry and others, 1988:40). However, classroom is much more. It is a place where teaching and learning are supposed to be going on, but where much else occurs as well. It is the people and the activities, which occur with in it; make the classroom an ecological setting for social interaction. What really makes a classroom a place where teaching and learning are supposed to happen in the conjunction of teacher, students and activities? So that the University classrooms equipped with varies materials that facilitates the lecture process and should be adequate for the expected number of students (Henry and others, 1988:41).

Although, classroom with in the context of the physical room, it is a room that enables to catch up 40 students in one for the Ethiopian context. It is a room that us adequately ventilated, lightened, and only spaced for 40 students at once (MOE 1995:3). Moreover, a well building with quality doors a widow with transparent glass, and a cemented floor is the minimally standardized classroom.

2.6.3. Financing of Higher Education

Financial problems are the most fundamental factor among factors prohibits student's intake capacity and providing of quality education of Universities. Financial problem stem from two nearly common forces. The first of these is the higher and increasing unit per student, cost of higher education. The second force is the increasing enrollments, particularly where higher birth rates are coupled with fast growing of youth finishing secondary school with reasonable desire for some tertiary education (Johnstone, 2003:1).

Higher education in most countries has been largely dependent on government budget source. Supporting this idea Hauptman (2006:86) elaborated that Tertiary education officials and faculty are concerned about providing a quality education with scarce resources and sustain their livelihood. Students and their families worry about how they are going to pay for their education beyond high school. In most developing countries the cost of tertiary education become increasing. This results diminished quality of the output diminished working and living conditions for professors, staff and students a like and constrained capacity and the consequent extreme rationing of places (Johnstone, 2003:2).

The over all amount of resources devoted to higher education is a key determinant of both the size and the quality of the education service. Generally, the more funds that are provided, the more likely people are able to participate. Intake capacity is likely to be higher with more resources, because more funds can be spinet on staff, services and facilities. Thus, cost of tertiary education depends on a combination of public and private sectors, education also both a private and social investment. Its cost also shared by individual's students, their families, employers, government, and other international agencies (Hauptman, 2006:87-96). The following are tow major source of finance for tertiary education.

2.6.3.1. Public sources of support

According to Hauptman (2006:87) in most developing countries, higher education institutions supported by public fund, the share of private source is inconsiderable. The means in which these public funds are allocated to institutional officials are critical in defining the financing system of the country. There are number of issues that help to differentiate public support of higher education, including: how research activities, recurrent operating expense (running costs) and capital expenses are financed, funding governance issues including who is responsible for distributing funds accountability models; and tax-based support.

Moreover, since education is regarded as government investment the lion share of cost of education goes to public. This is because; Social benefits of education exceed private benefits. Therefore, that to prevent under investment and to maintain fair access and equity of education and government collects high tax revenue from the education (John and Morphed, 1975).

2.6.3.2. Privet sources of funds to universities

According to Hauptman (2006:92) stated that tertiary education should support by privet fund in addition to public finance. These privet sources of funds to institutions including: tuition fees, gift sand other forms of philanthropy, payments from a variety of services; and the commercialization of research conducted on campus.

Furthermore, the cost of education progressively increases from level to level and on the supply side. The state needs guarantee basic education for all children of respective age groups. At the same times, it has to regulate the students to follows and to limit the demand for and access to upper levels of education, in particular to higher education (Kitaev, 1996; Bray, 1996).

2.6.4 Managing Higher Education Institution

Managing higher education institution is one of the most complex and challenging assignment in educational system. To properly administer the teaching learning process at this level, faculty deans and department heads are need to acquire the necessarily skill. The task of education management is such complex, purposive and delicate huge corporate type of venture. It needs good professional status that can effectively and efficiently mange the available human and material resources to attain the desired goals of educational organization. Carried out the intended educational goal through appropriate planning, organizing etc (Davis and Loveless, 1981).

CHAPTER THREE

PRESENTATION, ANALYSIS, AND DISCUSSION OF FINDINGS

This part of the thesis deals with the presentation and, analysis of the data obtained through questionnaire, interview and document analysis regarding demand (applicants) and intake capacity of graduate programs of Addis Ababa University.

The questionnaire was distributed to 75 instructors, who are involved in graduate programs of the university and 272 graduate students. Among the distributed questionnaires, 81.3 percent (61) of instructors and 94 percent (256) of students filled and returned the questionnaire. In addition, the Head of Graduate School and Research, two Associate Deans of Postgraduate Programs, and four Heads of Departments were interviewed.

The responses of instructors and students to each of the items given were analyzed, interpreted and discussed in this chapter. Most of the data gathered were organized by using tables. For the sake of convenience of interpretation, related items were treated together. As a result, the responses were found to be sufficient to draw inferences.

3.1. Characteristics of Respondents

Description of the characteristic of the samples of the study is presented below.

Table 2: Characteristics of Instructors Respondents

No	Items Characteristics	Instructors No	%
1	**Age**		
	20-40	19	31.1
	41-60	29	47.5
	Above 60	13	21.3
	Total	**61**	**100**
2	**Sex**		
	Male	56	91.8
	Female	5	8.2
	Total	**61**	**100**
3	**Level of education**		
	PhD	43	70.5
	MA/MSC	18	29.5
	BA/BSC/BED	-	-
	Others	-	-
	Total	**61**	**100**
4	**Academic Rank**		
	Lecturer	-	-
	Assistant professor	27	44.3
	Associate Professor	32	52.5
	Professor	2	3.3
	Total	**61**	**100**
5	**Term of employment**		
	Full Time	61	100
	Part time/Contract	-	-
	Others	-	-
	Total	**61**	**100**
6	**Years taught in graduate program of AAU**		
	5 and above year	61	100

From the data presented in table 2, the following significant characteristics of respondents have been obtained.

According to personal details shown in the Table two 91.8 percent (56) of instructors are male and only 8.2 percent (5) are female. Regarding age 31 percent (19) of them were in between 20 to 40 year, 47.5 percent (29) of them were in between 41 to 60 year. Moreover, 21.3 percent (13) of them were above 60 year.

When we see the work experience of instructors that were involved in the graduate programs, all of them of instructors have more than five years of experience in the program. In addition to this, their levels of education are as follows 70.5 percent (43) are PhD holders and 29.5 percent (18) of them are MA/MSc holders. Moreover, all of them were Assistant Professors and above. According to table two, 44.3 percent (27) are Assistant Professors, 52.5 percent (32) are Associate professors, and 3.3 percent (2) are full Professors. According to the HERQA (2006:5), the minimum benchmark of academic rank of instructors involved in graduate programs is Assistant professorship. This is the reason why all respondents of instructors have a rank of assistant professor or above. Furthermore, all sample instructors are fulltime employees.

Table 3, Characteristics of graduate student respondents

No	Items	Graduate students	
	Characteristics	No	%
1	Age		
	20-40	220	85.9
	41-60	36	14.1
	Above 60	-	-
	Total	**256**	**100**
2	Sex		
	Male	215	84.0
	Female	41	16.0
	Total	**256**	**100**
3	Sponsored		
	Government	127	49.6
	Self	129	50.4
	NGO's	-	-
	Other	-	-
	Total	**256**	**100**

Table 3 presents the characteristics of student respondents. According to the table 84 percent, (215) are male and the rest 16 percent (41) are female. When it comes to respondents' age, 85.9 percent (220) of students were between 20-40 year, and only 14.1percent (34) of students were between 41- 60.There is no student whose age exceeds 60 years.

Concerning sponsorship (grant), the number of students sponsored by the government and those who are self-sponsored students are almost equal, i.e. 49.6 percent (127) and50.4 percent (129) respectively.

3.2. Trend of Graduate Programs in AAU for the Past five Years (2003/04-2006/7)

Table 4: Applicants and Accepted Students of Graduate Programs for the Last five- Years

1	Department	2002/3		2003/4		2004/5		2005/6		2006/7	
		App.	Acce.	App.	Acce.	Appt.	Acce.	Appt	Acce.	App.	Acce.
1	Archaeology	7	7	16	5	6	4	-	-	10	5
2	Sociology	-	-	-	-	-	-	-	-	568	16
3	Linguistics	11	11	12	16**	16	15	8	7	36	29
4	EdPM	33	20	78	44	87	47	102	57	306	75
5	TEFL	47	30	108	63	85	95	52	50	218	122
6	Environment Science	13	13	9	17	65	29	92	52	356	111
7	Biology	96	79	12	12	16	4	56	74**	267	108
8	Multilingual and Multicultural	-	-	-	-	-	-	-	-	18	14
9	MBA	228	25	286	52	374	61	336	64	908	38
10	Civil Engineer	68	44	2	-	27	43	73	39	325	67
11	Public Health	93	40	138	49	190	65	126	51	480	53
12	RLDs	-	-	-	-	147	57	*	49	602	43
	Total	**596**	**269**	**661**	**258**	**1013**	**420**	**1007**	**443**	**4094**	**618**

App-applicants *Acce. -accepted*
** Not available.* ***additional students transfer from anther departments.*

The table shows the number of applicants and accepted students in various departments of graduate programs of AAU. Based on the data obtained from Registrar Office (2006) the university opened/started graduate programs in 1978/9. During that academic year, only 43 students joined the programs. Presently the programs expanded into various fields of specializations. The intake of students was relatively increased from the previous periods.

To make convenient discussion and interpretation of the trends of graduate programs, it is better to treat applicants and accepted students for the programs with in the past five years separately.

According to Table 4, departments such as Management and Business Administration, Environmental Science, Educational Planning and Management, Public Health and Teaching English as a Foreign Language, have large number of applicants. The number of applicants in these departments grew fast in the past five years. For instance, number of applicants increased from 13 students in 2003/04 academic year to 356 in 2006/07 academic year in Environmental Science Department. Similarly, the number of applicants increased from 228 applicants in 2003/04 academic year to 908 applicants in 2006/07 academic year in the Department of Management and Business Administration. In the case of Educational Planning and Management, Public Health and Teaching English as a Foreign Language, the applicants' number increased by fold in the past five years. According to data obtained from open-ended items, the students assumed that these departments have relatively high market demand than others. As the result of this, they had large number of applicants.

Even though most graduate programs have large number of applicants, there are few departments with have relatively few numbers of applicants. As it is shown in, the table above departments such as Archaeology and Linguistics can be cited as an example. They had few numbers of applicants for the past five academic years. The reasons are related to low job opportunity. These departments are assumed to have low market demand in comparison to others. Thus, students were not interested to join such departments.

In 2003/04 academic year, the number of applicants for the Archaeology and Linguistics departments were seven (7) and eleven (11) after five years; applicants became ten (10) and thirty-six (36) respectively. Multilingual and

Multicultural department also has had constant number of applicants with in the past two academic years of 2005/06 and 2006/07.

Regarding to students intake to the program there is also a great variation among departments. Departments as TEFL, Environmental Science and Biology are taking large number of students compared to others. For instance, in 2006/07, students admitted to the programs were 122,111, and 108 graduate students respectively. These departments were assumed to have high market demand and have better opportunity for good income. Moreover, these departments have relatively greater number of instructors than others. As the result of these, they become capable to take large number of students.

To the contrary, most departments presented in the table above had a great gap between the applicants (demands) and accepted number of student to the graduate programs. Departments such as Management and Business Administration, Rural and Local Development study and Sociology exhibited a large gap between demand and supply. Only 4.18 percent (38), 7.14 percent (43) and 2.81 percent (16) students were accepted in 2006/07 academic year out of 906, 602 and 568 applicants respectively for the departments stated above. Thus, from the above table it is inferred that, even if very few departments had few applicants, most postgraduate programs of the University had large number of applicants

On top of this, the interview with the Director of Postgraduate Studies and Research revealed that the University has been changing the process of admission to the simplest one. Currently, a person who has a first degree can apply to the masters program. Previously, the minimum CGPA required to join graduate programs was 2.50. Presently, any one with first degree can apply to the program. Moreover, active graduating student can also apply to the program if he/she is able to finish his/her undergraduate program before the registration schedule.

Table 5: The Reasons why most students want to join graduate programs

No	Item	1		2		3		4		5		Me	R
		No	%	No	%	No	%	No	%	No	%		
1	Better employment opportunity	3	1.2	2	0.8	6	2.3	54	21.1	191	74.6	4.67	1
2	Possibilities for good income	1	0.4	18	7.0	3	1.2	217	84.8	17	6.6	3.90	2
3	Study for its own sake/personal interest	14	5.5	173	67.6	24	9.4	35	13.7	10	3.9	2.43	4
4	Scholarship grant incentives	59	23	68	26.6	40	15.6	52	20.3	37	14.5	2.77	3

1-strongly disagree, 2 - Disagree, 3-undecided, 4- agree, 5-strongly agree.
Me-mean R- Rank.
Respondents-students ***n=256***

Table four (5) presents the opinions of the respondents about the reasons why they joined the graduate program. Four major purpose of joining post graduate study were given to the respondents. With regard to the first item, better employment opportunity, the data revealed that the majority of the 74.6 percent (191), and 21.1 percent (54) of students expressed that they strongly agree and agree with this reason respectively. Merisotis (1998:1) clarified that, the more individuals are educated the great that the chance to increase his/her employment opportunity, and to improve his/her working condition. Education and better employment have been reported to have positive correlations.

Concerning, the reason that drive students to continue further education for securing good income, majority of respondents 91.4 percent (234) favored this reasons for good income is highly related to educational level. In most cases high productivity positively related to the level of education. In addition, if there is a high production the income also grows up (Kathleen, 2002).

According to table five, the 3rd and the 4th items have not a significance influence on students who applied for postgraduate programs. In the case of item 3, (study for their own personal interest) 17.6 presents of respondents agreed. To the contrary, the majority of respondents, 73.1 percent expressed

their disagreement. This means personal interest is not the key reason for their further education.

Regarding scholarship grant about 127 (49.6 percent) of the respondents witnessed their disagreement to the given idea. However, 34.8 percent (89) of the respondents explained their agreement with the suggested reason. When compared the personal background information in table, two about 49.6 percent (127) students were sponsored by the governmental organization. Based on this fact scholarship grant has a significant importance on the graduate enrollment.

To magnify the order of their importance, it is better to compare mean values. Table 4 indicated that, better employment opportunity and possibilities for good income have highest mean value, in fact, the former is greater than the later, i.e. 4.67 and 3.90 respectively. However, the next two reasons (study for personal interest and scholarship grant incentives) have less mean in relation to the above two factors. These are 2.43 and 2.77 respectively. Therefore, it can be said that the factors with highest mean values are more significant reasons for enrollment in the graduate programs than factors with the least mean value. Accordingly, better employment opportunity, possibilities of good income, scholarship grant incentives and study for its own sake or personal interest are ranked one to four respectively.

Table 6: Opinion of respondents about selection criteria of graduate students

No	Selection Criteria Items	R.	1		2		3		4		5		Total		x^2
			No	%	No	%	No	%	No	%	No	%	No	%	
1	Academic performance (CGPA)	S	31	12.1	33	12.9	7	2.7	122	47.7	63	24.6	256	100	3.161
		I	5	8.2	6	9.8	3	4.9	27	44.3	20	32.8	61	100	
		T	**36**	**11.4**	**39**	**12.3**	**10**	**3.2**	**149**	**47.0**	**83**	**26.2**	**317**	-	
2	Minimum CGPA 2.00	S	17	6.6	19	7.4	26	10.2	45	17.6	149	58.2	256	100	56.963
		I	14	23.0	20	32.8	8	13.1	9	14.8	10	16.4	61	100	
		T	**31**	**9.8**	**39**	**12.1**	**34**	**10.7**	**54**	**17.0**	**159**	**50.2**	**317**	-	
3	Minimum CGPA 2.50	S	52	20.3	132	51.6	19	7.4	23	9.0	30	11.7	256	100	76.603
		2	4	6.6	8	13.1	1	1.6	19	31.1	29	47.5	61	100	
		T	**56**	**17.7**	**140**	**44.2**	**20**	**6.3**	**42**	**13.2**	**59**	**18.6**	**317**	-	
4	Entrance Exam	S	10	3.9	5	2.0	22	8.6	55	21.5	164	64.1	256	100	0.549
		I	3	4.9	2	3.3	25	8.2	13	21.3	38	62.3	61	100	
		T	**13**	**4.1**	**7**	**2.2**	**27**	**8.5**	**68**	**21.5**	**102**	**63.7**	**317**	-	
5	Work experience	S	148	57.8	55	21.5	24	9.4	17	6.6	12	4.7	256	100	0.373
		I	36	59.0	14	23.0	5	8.2	3	4.9	3	4.9	61	100	
		T	**184**	**58.0**	**69**	**21.8**	**29**	**9.1**	**20**	**6.3**	**15**	**4.7**	**317**	-	
6	Personal interest	S	11	4.3	20	7.8	13	5.1	173	67.6	39	15.2	256	100	2.813
		I	3	4.9	7	11.5	2	3.3	36	59.0	13	21.3	61	100	
		T	**14**	**4.4**	**27**	**8.5**	**15**	**4.7**	**209**	**65.9**	**52**	**16.4**	**317**	-	
7	Publication	S	127	49.6	69	27.0	21	8.2	19	7.4	20	7.8	256	100	5.239
		I	23	37.7	20	32.8	9	14.8	6	9.8	3	4.9	61	100	
		T	**150**	**47.3**	**89**	**28.1**	**30**	**9.5**	**25**	**7.9**	**23**	**7.3**	**317**	-	

- *Significant at alpha = 0.05 (df (4) = 9.49).*
- *1- very unimportant. 2- unimportant 3-undecided 4- important 5- very important*
- *R- respondents S-Student I- Instructor T-total*

What is actually observed from Table six is that instructors and students had different opinion on selection criteria. One of the points raised was applicants for postgraduate programs should have 2.50 minimum cumulative GPA or they should have only 2.00 (having first degree is enough). These x^2 values confirm that there was opinion difference; x^2 values are 76.603 and 56.963 to the first and the second item respectively. These x^2 values were greater than the table values (9.49). Thus, there was significant difference of opinion between the two groups. Majority of instructors 78.6 percent (48) expressed their agreement. To the contrary 71.9 percent (184) of students opposed the minimum cumulative GPA should be 2.50 and above. Inversely, in the case of applicant should have CGPA 2.00, majority, 34 (55.8%) of instructors expressed their opposition, and 194 (75%) of student expressed their agreement.

Even though quality education is a result of various inputs, students are key inputs of education (Tesfaye and Philip, 2005). Therefore, it is better to have academically strong students in graduate programs. Based on this fact, most instructors argue that applicants for postgraduate programs should have minimum CGPA of 2.50 and above.

As indicated in Table six (6), entrance exam, academic performance (CGPA) and personal interest, are very important tools to be the part of selection criteria. Instructors and students agreed on these criteria. The majority 83.6 percent (51) of instructors and 85.6 percent (219) of students agreed on the importance of entrance exam. Academic performance and individual interest of applicants should be considered as basic selection criteria. Regarding these two criteria, the majority 73.2 percent (232) and 82.3 percent (261) respondents respectively agreed. Moreover, the chi-square results for academic performance and individual interest are 3.161 and 2.813 respectively. This indicates that there is no significant opinion deference between instructor and student on the above items.

Concerning, work experience and publication as selection criteria, both of the respondents argued that these factors should not be addressed. For the former criteria among the total respondents majority 253 (79.8 percent) and to the later criterion 239 (75.4 percent) of them revealed their disagreement. Moreover, χ^2 values indicated 0.373 and 5.239; this means that there is no significant opinion difference between instructors and students with respect to these selection criteria. Similarly, interview with Associate Deans of postgraduate program asserted that, work experience and publication are not considered as selection criteria for the programs.

3.3. Problems Related to Academic Staff

Effective instruction, as it is clearly known, is the cumulative effort of various inputs. Among these inputs, teachers are the key to education. The shortage of qualified instructors in different field of specialization highly affects the overall activities of education. The quality of education cannot be successful without efficient and well-qualified instructors (Ayalew, 1995). Similarly, Okumbe (1998:153) describes that:

> *"Production of the necessary skilled manpower requirements of a country depends on the quality and effectiveness of instructors. The quality of doctors, instructors, lawyers, accountants, engineers, and other professionals depend on how well they have been prepared for their various roles in the society by their instructors."*

The following table shows the status of instructors in postgraduate programs of Addis Ababa University.

Table 7: Responses of Instructors and Students on Items Related to Academic Staff

No	Items	R	Yes		No		No response		Total	
			No	%	No	%	No	%	No	%
1	Does your department have enough instructors for its programs?	S	24	9.3	208	81.3	24	9.4	256	100
		I	7	11.5	54	88.5	0	0	61	100
		T	**31**	**9.8**	**262**	**82.6**	**24**	**7.6**	**317**	-
2	Does the shortage of instructors was major problem of the department?	S	211	82.4	27	10.5	18	7.0	256	100
		I	42	68.9	14	23.0	5	8.2	61	100
		T	**253**	**79.8**	**41**	**12.9**	**23**	**7.3**	**317**	-
3	Is assistant professor ship the minimum academic rank of the instructors involved in graduate program of your department?	S	185	72.3	31	12.1	40	15.6	256	100
		I	61	100	0	0	0	0	61	100
		T	**208**	**65.6**	**69**	**21.8**	**40**	**12.6**	**317**	-
4	Do most instructors involved in graduate program of your department have professorship rank?	S	13	5.1	231	90.2	12	40	256	100
		I	0	0	48	78.7	13	21.3	61	100
		T	**13**	**4.1**	**279**	**88.0**	**25**	**7.9**	**317**	-
5	Are most instructors involved in graduate program of your department full time employees?	S	180	70.3	52	20.3	24	9.4	256	100
		I	55	902	6	9.8	0	0	61	100
		T	**253**	**74.1**	**58**	**18.3**	**24**	**7.6**	**317**	-
6	Is academic staff turnover major problem in your department?	S	-	-	-	-	-	-	-	-
		I	14	23. 0	31	49.9	16	26.2	61	100
		T	**14**	**23. 0**	**31**	**50.8**	**16**	**26.2**	**61**	**100**
7	Do you teach in the undergraduate program in addition to your teaching in the graduate program?	S	-	-	-	-	-	-	-	-
		I	42	68.9	19	31.1	-	-	61	100
		T	**42**	**68.9**	**19**	**31.1**	-	-	**61**	**100**

- R.- respondents, S-Student, I- Instructor T- total

Table 7, presents if departments had enough instructors for postgraduate programs. The majority 81.3 percent (208) of students and 88.5 percent (54) instructors expressed their disagreement to the adequacy of instructors in their departments. In various departments, the number of qualified instructor involved in postgraduate programs was not enough. This problem is highly

manifested in the newly opened departments (for example RLDS). Regarding this problem, majority of respondents 79.8 % (253) out of 317 agreed on shortage of qualified instructors and its effect upon current expansion of postgraduate programs. As mentioned earlier, the number of students in most departments is growing at alarming rate while qualified instructors were not added to these departments.

Shortage of qualified instructors is a very serious problem. Nevertheless, all instructors of the university who were involved in postgraduate program are with the minimum level of assistant professor. This means that they fulfill the standard, which is needed for the programs. Concerning academic staff qualification, 100 % (61) of the instructors, and majority 72.3 % (185) of the students described that instructors who are involved in postgraduate programs have minimum of assistant professorship. However, number of full professors in various departments was very limited. HERQA (2006:4) describes that instructors should have a minimum of assistant professorship to teach at postgraduate level. According to data obtained through questionnaire, there were no problems regarding academic staff qualification. However, shortage of instructors in various departments was serious program. Most of the instructor respondents conformed that among instructors involved in graduate programs majority of the 74.1 % (235) are full time employees.

In most African higher institutions, brain drain and high turnover rate are familiar. There are so many external pulling factors, which causes turnover. Among these, the major factors are unsatisfactory salary increment, poor management system with low academic freedom, and poor facilities (Kefyalew, 2001:31). However, respondents were asked, whether academic staff turnover is a major problem or not in their department. Almost 51 % (31) of them answered 'No', which mean staff turnover was not major problem while only 23% (14) of them asserted their agreement that it, was a major problem.

The reason behind limited turnover rate can be attributed to the age of instructors. As we see in Table 2, characteristics of respondents, majority of the instructors (68.9 percent) were 41 and above. According to Hoffman (1994), theory of developmental psychology, at adulthood stage, which is between the ages of 40 to 65, individuals become well educated. They possess high intellectual capacity and feel high responsibility. Their social and personal bonds are strong, as the result they do not want to depart their adapted settlement and job; they need stable environment. This indicates that adulthood contributes both for the quality of education as well as for sustainability of instructors.

Table 8: Responses of Instructors towards Work Load

No	Items	Instructor Respondents N=61									
		1-3		4-6		7-9		10 and Above		Total	
		No	%	No	%	No	%	No	%	No	%
1	Currently how many credit hours do you teach in graduate program?	11	18.0	0	0	14	23	36	59	61	100
2	How many graduate advisees do you have in this academic year?	16	26.2	12	19.7	33	54	0	0	61	100
3	As for as your knowledge is concerted, how many advisees can an instructor advise effectively?	49	80.3	4	6.6	8	13.1	0	0	61	100

Regarding working load Table 8, describes three inter related items. The first item asks about instructor's weekly credit hours in graduate program only. In this regard majority, 59 percent (36) of instructors had ten and above teaching loads per week, and only 18 percent (11) instructs had a working load between one to three credit hours per week. In addition to weekly credit hours, instructors have large number of graduate advisees. Majority of them 54% (33) out of 61 instructors have seven to nine graduate advisees, 19.7% (12) of them

had four to six advisees and the rest 26.2% (16) of them had one to three graduate advisees.

Concerning the third item, about number of advisees, majority of the respondents explained their agreement that about one to three advisees are only appropriate/optimal number of advisees for an instructor to advice properly. According to the respondent given 80.3 percent (49) instructors agreed with this idea and 6.6 percent (4) of the instructors agreed about the number of advisees to be four up to six. The rest 13.1 percent (8) of the instructors believed that seven to nine advisees can be well treated an individual, respectively. According to, HERQAs' standard (2006:4) a single instructor cannot advice more than five graduate students.

3.4. Managment Factors Affecting Expansion of Graduate Program

Table 9: Responses on Items Related to Management Activities

No	Item	R	Yes		No		No response		Total	
			No	%	No	%	No	%	No	%
1	Do students' have representative in management system of your faculty?	I	19	31.1	35	57.4	7	11.5	61	100
		S	16	6.3	189	73.8	51	19.9	256	100
		T	35	11.0	224	70.7	58	18.3	317	100
2	If your answer for the above items is "No", can the absence of students' representatives in management system affect the intake capacity of the department?	I	13	37.14	22	62.86	-	-	35	100
		S	30	15.87	159	84.13	-	-	189	100
		T	43	19.2	181	80.8	-	-	224	100
3	Did your department participate in the expansion of graduate programs of the university?	I	61	100	-	-	-	-	61	100
		T	61	100	-	-	-	-	61	100
4	Does your department possess adequate administrative personal?	I	10	16.4	43	70.5	8	13.1	61	100
		T	10	16.4	43	70.5	8	13.1	61	100
5	Do instructors of the graduate program in your department participate in decision-making issues, which are related to graduate programs?	I	40	65.6	11	18.0	10	16.4	61	100
		T	40	65.6	11	18.0	10	16.4	61	100
		S	9	3.5	225	87.9	21	8.2	225	100
		T	9	3.5	225	87.9	21	8.2	225	100
6	Does your department get adequate budget for implementing its planned activities of graduate program?	I	15	24.6	34	55.7	12	19.7	61	100
		T	15	24.6	34	55.7	12	19.7	61	100

- R.- respondents S-Student I- Instructor T-total

Table nine (9) presents the opinion of respondents on the managerial activities related to graduate departments. Item one on the table is concerned with students' representatives in management activities. Out of the total 317 respondents, the majority 57.4 percent and 73.8 percent instructors and students respectively, assured that there is absence of students' representatives in management system of graduate program. Heads of departments approve this idea; there are no representatives of students in graduate program managing bodies. Moreover, they did not believed that the absent of students participation in management affects the expansion program. Instructors and students also share the Department Head's idea, majority, 62.8 percent of instructors and 84.1 present of students claimed that, participation of students in managerial system, had no meaningful impact on increasing the intake capacity of students.

To the contrary of the above findings, item five (5) of Table nine indicates that instructors were participating in decision-making activities in their department to discuss, academic issues. The majority 65.6 percent (40) of instructors confirm that they were participating in decision-making process. Interviews with Department Heads and Associate Deans of postgraduate programs supported this fact. They said there are meetings with instructors and concerned bodies about overall academic issues.

With regard adequacy of supportive staff in departments, out of the total (61) respondents, majority of the instructors, 70.5 percent (43) argued that there is no enough supportive staff to facilitate the graduate programs in their respective departments. Department Heads confirmed this idea. Because of the shortage of supportive personnel, they supposed to do all none professional tasks in addition to their regular management activities. Therefore, such kind of conditions made them so busy. This in turn affected their managerial tasks, and caused delay on job.

Item six of the table indicates the advocacy and orientation given to graduate students. Because of students' failure to have detailed information about postgraduate departments, most of them joined to various fields of specializations without any orientation. Most students 87.9 percent (225), out of the total 256, confirmed that they had not any information about their departments before they joined. The absent of advocacy or giving orientation to applicants, thus caused high concentration of applicants only in few departments. Peer influence and being misinformed about the departments changed applicants' interest while joining departments. As indicated on table three, there existed a great number of applicants variation between departments. The absent of advocacy and orientation, therefore, could be mentioned as one of the reasons that caused biased attitude toward different field of studies.

Finally, budget adequacy for planned activities was considered in the above table. From total 61 respondents, 55.7 percent (34) of them stated that budget was a serious problem in their departments. As the result of thus, most planned activities are not put into practice. Forojalla (1993) discussed that budgeting ensures that the required resources will be available at the right time in the right amount to complete intended actions and accomplished planned objectives. The plan and the budget together provide a composite picture of what is intended as well as expected and the means by which the objectives to be achieved. Plan with out enough budgets means training to clap with one hand.

Table 10: Instructors' view on Major Budget Sources

No	Budget Sources	1 Strongly disagree		2 Disagree		3 Undecided		4 Agree		5 Strongly agree		Total	
		No	%	No	%	No	%	No	%	No	%	No	%
1	Should be from Public fund	-	-	-	-	-	-	4	6.6	57	93.4	61	100
2	Should be from Student tuition fee	-	-	50	82.0	11	18.0	-	-	-	-	61	100
3	Should be from Donors assistance	32	52.5	22	36.0	7	11.5	-	-	-	-	61	100
4	Should be from Research project	36	59.0	12	19.7	13	21.3	-	-	-	-	61	100

The expansion of educational programs and provision of quality education in higher institutions are greatly influenced by the amount of finance available to education and by the extent to which the available finance is effectively and efficiently managed and utilized (Melaku, 2000).

Developing countries like Ethiopia are now facing high demand for more and better education. To produce greater quality and equality with in the education system, it requires the provision of adequate finance from different sources. However, major financial sources of higher institutions highly depend on government source. Table ten describes that majority of instructors 93.4% strongly agreed that public fund is important and the only source of budget for expansion program of post graduate. Other mentioned source of fund, like students' tuition fee, donor assistance and research project had no feasible importance for generating income of higher institution.

Moreover, as the interview with Director of Graduate Studies and Research revealed, the experience in Ethiopia showed that the resource that comes from the government is not adequate to address the educational demand. Thus, the government source should be supported by other sources to increase the access

and improve the quality of graduate programs. To minimize such financial problems cost sharing will be implemented for the program in the near future.

Gasskov (1994) elaborate that with growing of excess demand, expecting the government to be able to continue increasing subsides to the higher education sector would be improbable. Therefore, countries are exploring different strategies to reduce or shift the costs of maintaining higher educational institutions from central funds to other source of finance. This fact indicated that the state could not assume longer the financial burden of higher education alone. It also has lead to the development of new models of government intervention. One of which is cost sharing. The effort of government to share the cost of higher education with other members of society has now become a global phenomenon, affecting both developing countries and industrialized nations. Therefore, implementing cost sharing is found to be essential I the case.

Table 11: Opinion of Respondents toward Managerial Competence

To	Top Administers		R	Low		Medium		High		Total	
				No	%	No	%	No	%	No	%
1	Faculty Deans	Experience	I	8	13.1	12	19.7	41	67.2	61	100
			S	26	10.2	43	16.8	187	73.0	256	100
			T	**34**	**10.7**	**55**	**17.4**	**228**	**71.9**	**317**	-
		Managerial competence	I	4	6.6	36	59.0	21	34.4	61	100
			S	48	18.8	58	22.7	150	58.6	256	100
			T	**52**	**16.4**	**94**	**29.7**	**117**	**53.9**	**317**	-
2	Department Heads	Experience	I	12	19.7	10	16.4	39	63.9	61	100
			S	29	11.3	185	72.3	43	16.4	256	100
			T	**41**	**12.9**	**195**	**61.5**	**81**	**25.6**	**317**	-
		Managerial competence	I	9	14.8	12	19.7	40	65.6	61	100
			S	196	76.6	55	21.5	5	2.0	256	100
			T	**205**	**64.7**	**67**	**21.1**	**45**	**14.2**	**317**	-

- R- respondents, S-Student, I- Instructor T-total

Table 11 shows that the opinion of instructors and graduate students regarding managerial competence of postgraduate programs. In order to achieve sated goals institutions should have competent administrators who are well skilled in management functions. The research questionnaire asked instructors and students about experience and managerial competence of their Faculty Deans and Department Heads. Majority of respondents, 67.2% (41) and 73.0% (187), instructors and students respectively confirmed that their faculty deans were experienced enough. Moreover, the managerial competence rate is stated as medium and high for instructors and student respectively.

As it is depicted in, the second item of table 10, (63.9%) of instructors and (72.3%) of students responded that their Department Heads were highly experienced and medium experienced respectively. In general, from 317 respondents the majority, 61.5% (195), agreed that the experience of Department Heads were leveled as medium experience. Even though, they had medium experience, they were competent enough to put the strategic planning of the university into action. Supporting this 137 (53.5%) of the students agree with medium ability, and to the contrary 65.6% (40) of the instructors agreed with high skilled management competence of Department Heads.

3.5. Institutional Facilities, Instructional Materials and Technologies

This section of the chapter focuses on the facilities, instructional materials and educational technologies, which hinder the intake capacity of postgraduate programs. Most of higher education facilities in the developing world tend to be crucial factors in the 21st century innovation and knowledge-based global economy. Doherty (1994) noted that the presence and heterogeneous use of technology is one of the manifestations of how institutions and organizations can favors individuals and groups to realize their dreams.

Table 12: Responses on Items Related to Class Size

No	Item	Respondents					
		Instructors		Students		Total	
		No	%	No	%	No	%
1	What is the current class size of the graduate program of your department?						
	below 20	7	11.5	51	19.9	58	18.3
	20-29	7	11.5	26	10.2	33	10.4
	30-39	14	23.0	177	69.1	191	60.3
	40 and above	33	54.1	2	0.8	35	11.0
	Total	**61**	**100**	**256**	**100**	**317**	**100**
2	How many students should be assigned in a classroom for an effective teaching learning process in postgraduate programs of your department?						
	below 20	47	77.0	198	77.3	243	77.1
	20-29	14	23.0	43	16.8	57	18.1
	30-39	-	-	12	4.7	12	3.8
	40 and above	-	-	3	1.2	3	1.0
	Total	**61**	**100**	**256**	**100**	**317**	**100**

The table presents views of students and instructors with relation to class size in various departments. Regarding, "what is the current number of student in classroom of your department?" Only 11.5 percent (7) of instructors and 19.9 percent (51) student respondents indicates below 20 students were there in their department. Majority of respondents, 60.3 percent, agreed that class size was 30 to 39 students in a class. Moreover, 21.4 percent of respondents confirmed that the class size was in between 20 to 39 students. This data shows in most departments the number of student in a class were high. It was related to shortage of instructors and other facilities, such as classrooms.

According to data obtained through interview from department heads, due to higher number of students in a class, instructors face difficulties when there were assignments, term papers and other activities to be corrected by instructors. These causes, less follow up of students. On top of this, the instruction method becomes only lecture method (teacher centered), rather than student centered. Even most students did not have a chance to present

their term papers. In some courses, instructors are not available. To alleviate this problem the departments merge two batches together and gave a course at a time. This was one cause for large class size.

In item two of the same table, instructor and students expressed their opinion to ward the optimal class size of graduate programs. Among listed option on the table above, majority 77 percent (47) of instructors and 77.3 percent (198) of students confirmed that, effective teaching learning process were taken place when the class size is below 20. In postgraduate level, the class size should be around 20. However, there is a little variation based on specific nature of departments.

Table 13: Instructors and Students Response Concerning to Adequacy of Classrooms

No	Items	R.	1		2		3		4		5		Total	
			No	%	No	%	No	%	No	%	No	%	No	%
1	Adequate classrooms	S.	189	73.8	30	11.7	33	12.9	4	1.6	-	-	256	100
		I.	12	19.7	43	70.5	6	9.8	-	-	-	-	61	100
		T	**201**	**63.4**	**73**	**23.0**	**39**	**12.3**	**4**	**1.3**	**-**	**-**	**317**	
2	furnished classrooms	S.	11	4.3	213	8.3	22	8.6	10	3.9	-	-	256	100
		I.	48	78.7	13	21.3	-	-	-	-	-	-	61	100
		T	**59**	**18.6**	226	**71.3**	**22**	**6.9**	**10**	**3.2**	**-**	**-**	**317**	
3	equipped with white boards/black boards	S.	2	0.8	-	-	5	2.0	175	68.4	74	28.9	256	100
		I.	-	-	2	3.3	-	-	14	23.0	45	73.8	61	100
		T	**2**	**0.6**	**2**	**0.6**	**5**	**1.6**	**189**	**59.6**	**119**	**37.5**	**317**	
4	equipped with audio-visual sets	S.	139	54.3	54	21.1	32	12.5	24	9.4	7	2.7	256	100
		I.	41	67.2	17	27.9	3	4.9	-	-	-	-	61	100
		T	**180**	**56.8**	**71**	**22.4**	**35**	**11.0**	**24**	**7.6**	**7**	**2.2**	**317**	
5	Classrooms with sufficient electric power or sockets	S.	165	64.5	57	22.3	21	8.2	3	1.2	10	3.8	256	100
		I.	10	16.4	41	67.2	-	-	6	9.8	4	6.6	61	100
		T	**175**	**55.2**	**98**	**30.9**	**21**	**6.6**	**9**	**2.8**	**14**	**4.4**	**317**	

- R. - respondents, S-Student, I- Instructor, T-total
1.very inadequate 2. inadequate 3.undecided 4.adequate 5. very adequate

According to the table, classrooms were not adequate to the existing postgraduate programs. Supporting this idea, majority 63.4 percent (201) and 23 percent (73) of respondents showed their disagreement by choosing very inadequate and inadequate options respectively. In addition to this, in the open-ended question students mentioned that, due to shortage of classrooms in the University, overlapping of schedule in a classroom was common. Moreover, delaines to attending those courses was created.

Classroom is not only the building; it contains various facilities in it. Among these well-furnished chairs, tables, black and white boards, electric powers and audio-visuals sets are the common one (Henery, and other 1988). Regarding facilities, Table 12, indicate the status of classrooms in the university. Instructors and students expressed their agreement for adequacy of white board and black board in classrooms. This in figure about 59.6 percent and 37.5 percents were agreed as very adequate and adequate respectively. For the rest items of the table 12, respondents disagreed with the adequacy. Majority 89.9%, 79.1%, 85.9% of respondents expressed their strong disagreement adequacy of furniture, audiovisual materials, and electrical sockets in classrooms respectively.

The absence of adequate classroom equipment with the number of students affects the teaching learning process. Instructors also faced difficulties in giving instruction as the course contents demanded. This problem is a major problem especially in Language, Science, Health and Technology faculties.

Table 14: Instructors and Students View on the Status of Library Services

No	Items	R	1		2		3		4		5		Total	
			No	%	No	%	No	%	No	%	No	%	No	%
1	Adequate reference books	I.	41	67.2	20	32.8	-	-	-	-	-	-	61	100
		S.	140	54.7	88	34.4	8	3.1	10	3.9	10	3.9	256	100
		T	**181**	**57.1**	**108**	**34.1**	**8**	**2.5**	**10**	**3.2**	**10**	**3.2**	**317**	
2	Adequate of Journals	I.	19	31.1	37	60.7	5	8.2	-	-	-	-	61	100
		S.	57	22.3	150	58.6	10	3.9	21	8.2	18	7.0	256	100
		T	**76**	**24.0**	**187**	**59.0**	**15**	**4.7**	**21**	**6.6**	**18**	**5.7**	**317**	
3	Adequate Dictionary	I.	-	-	46	75.4	15	24.6	-	-	-	-	61	100
		S.	76	29.7	144	56.3	2	0.8	21	8.2	13	5.1	256	100
		T	76	24.0	190	59.9	17	5.4	21	6.6	13	4.1	317	
4	Adequate Encycloped ias	I.	39	63.9	22	36.1	-	-	-	-	-	-	61	100
		S.	38	14.8	160	62.5	19	7.4	17	6.6	22	8.6	256	100
		T	**77**	**24.3**	**182**	**57.4**	**19**	**6.0**	**17**	**5.4**	**22**	**6.9**	**317**	
5	Adequate Reading rooms	I.	61	100	-	-	-	-	-	-	-	-	61	100
		S.	147	57.4	50	19.5	14	5.5	28	10.9	17	6.6	256	100
		T	**162**	**51.1**	**68**	**21.5**	**14**	**4.4**	**45**	**14.2**	**28**	**8.8**	**317**	
6	Sufficient Computers	I.	1	1.6	32	52.5	9	14.8	9	14.8	10	16.4	256	100
		S.	55	21.5	170	66.4	15	5.9	15	5.9	1	0.4	256	100
		T	**56**	**17.2**	**202**	**63.7**	**24**	**7.6**	**24**	**7.6**	**11**	**3.5**	**317**	
7	Sufficient Internet accesses	I.	-	-	44	72.1	-	-	14	23.0	3	4.9	256	100
		S.	50	19.5	120	46.9	16	6.3	37	14.5	33	12.9	256	100
		T	**50**	**15.8**	**164**	**51.7**	**16**	**5.0**	**51**	**16.1**	**36**	**11.4**	**317**	

- R- respondents, S-Student, I- Instructor T-total
1.very inadequate 2. inadequate 3.undecided 4.adequate 5. very adequate

As it can be seen in the above table, attempt was made to examine the availability of necessary facilities in the University libraries. Out of 317 respondents, all instructors 100 % (61) and majority of students 89.1% (228) expressed their disagreement to the adequacy of reference materials in libraries.

On top of this as reviewed from open-ended questions, lack of related reference materials was among the serious problems. The problem is not only shortage of books but there are also not up to date. As some respondents, stated Addis Ababa University Libraries are only beautiful buildings with no reference books. This could clearly put the real status of the libraries. Regarding, the adequacy of Journals, Dictionaries and Encyclopedias related to various fields, the problem was the same as that of reference books. Majorities of respondents

83% (263), 83.9% (266), 81.7% (259) from the total 317 indicated their agreement with inadequacy of Journals; Dictionaries and Encyclopedias respectively. Library provides a positive and progressive program, which integrates library resources with classroom activities by adding to the educational opportunities of every student.

As far as the fifth (5th) item of the above table concerned, most of respondents 100 % (61) of instructors and 76.9 % (197) of students verified that there existed lack of adequate reading room in library. This problem reaches its climax when mid exam and final exams approach. All libraries used to get full, and libraries were crowded. The other problem related to libraries, is that instructors had no reading rooms preserved in the libraries.

These day library is not only a collection of books; rather it is a center of information technology (ICT). Therefore, adequate computers with internet access should be available. Concerning availability of computers and internet accesses, out of 317 total respondents, majority of them 89.9 percent, (258) strongly believe that there is limited number of computers in libraries. Moreover, inadequate of computers related to inadequacy of internet access confirmed by, 67.5% (214) respondents through their choice disagreement.

Table 15: Responses of Instructors and Students Regarding Laboratory Services

No	Items	R.	1.		2.		3.		4.		5.		Total	
			No	%	No	%	No	%	No	%	No	%	No	%
1	Adequacy of Laboratory equipments	I.	18	69.2	8	30.8	-	-	-	-	-	-	-	26
		S	82	64.6	22	17.3	7	5.5	11	11	8.7	5	3.9	127
		T	**100**	**65.4**	**30**	**19.6**	**7**	**4.5**	**11**	**11**	**7.2**	**5**	**2.3**	**153**
2	Adequacy of chemicals	I	23	88.5	3	11.5	-	-	-	-	-	-	-	26
		S.	68	53.5	21	16.5	18	14.2	12	12	9.4	8	6.4	127
		T	**91**	**59.5**	**24**	**15.7**	**18**	**11.8**	**12**	**12**	**7.8**	**8**	**5.2**	**153**
3	furnished display rooms	I.	21	80.8	5	19.2	-	-	-	-	-	-	-	26
		S	9	7.1	21	16.5	8	6.3	74	74	58.3	15	11.8	127
		T	**30**	**19.6**	**26**	**16.9**	**8**	**5.2**	**74**	**74**	**48.3**	**15**	**9.8**	**153**
4	equipped language laboratory	I.	10	100	-	-	-	-	-	-	-	-	-	10
		S.	51	91.7	5	8.3	-	-	-	-	-	-	-	56
		T	**61**	**92.4**	-	**1.6**	-	-	-	-	-	-	-	**66**
5	equipped ICT laboratory	S	130	50.8	74	28.9	36	14.1	16	6.3	-	-	-	256
		T	**130**	**50.8**	**74**	**28.9**	**36**	**14.1**	**16**	**6.3**	-	-	-	**256**

1.very inadequate 2. Inadequate 3.undecided 4.adequate 5. Very adequate.
R.- respondents S-Student I- Instructor T-total

As Good (1973) defined, laboratory is a room or other portion of a university (school) building in which teachers and students may came to make experiments. Commonly, especial rooms are conserved with special apparatuses and equipments in order to perform experiments or exercises and working out problems.

Item one on the above table is concerned, with the adequacy of laboratory equipments. Out of 153 total respondents, majority of the students 81.9 percent (104) and 100 percent (26) instructors asserted that, there was shortage of laboratory equipments, in comparison to the number of students. As the result, only few experiments were taken place in laboratory.

With regard to the second item, most of respondents 75.2% (215) of them agreed that there is absence of various chemicals in laboratory. This creates difficulties in perform experiments. Some chemicals are expensive, as the result the university cannot afford to buy them unless they are donated from external bodies. When it comes to item number three (3), students confirmed that there

are enough and well-equipped display rooms in laboratories. However, 100 % (26) professors of reported the opposite.

In general, with laboratory issues, there were so many laboratories are not only for Natural Science fields of studies they are also needed in Language, Geography and other departments. Similarly, ICT laboratory is necessary for all departments. Based on the information gathered through open-ended questions, respondents indicated that there was shortage of GIS laboratory and language laboratory. Regarding ICT laboratory, students indicated that there are hardly enough computers and internet access.

According to the data obtained through interview with Department Heads, University facilities and current number of graduate students did not much. There were high number of students in various departments and number of academic staff was very less. Various services for the expansion program were not fulfilled. Moreover, shortage of general services for instructors was serious problems. There are inadequacy of office, conference halls, stationary materials, printing services and secretarial services in most departments.

Table 16: Responses on Possible Influential Factors about Intake Capacity of Students for Graduate Program

No	Item	Aggregated mean	Rank
1	Shortage of qualified academic staff	1.37	1
2	Inadequate classrooms	3.25	3
3	Financial problem	3.24	2
4	Shortage of educational facilities (library, laboratory ICT services)	3.61	4
5	Poor management system	3.87	5
6	Inadequacy of teaching aid materials	4.87	6

According to Table 16, the qualified academic staff in quantity as well as quality was the most serious factor that caused low student intake. Majority of respondents argued that there was lack of qualified instructors. As the result,

some departments arranged block courses (short-term teaching-learning process; it can be rendered with in two weeks) jointly with foreign University. If not, some courses were given for two consecutive batches at a time (by merging two classes).

Moreover, the second most important factor affecting the intake capacity of the University, regarding enhancing post graduate expansion program, is the financial (budget) shortage. As it was previously mentioned, the only source of budget in higher education is the government. This fact is applied for most developing countries. Psacharopoulos (1985:105) is focused that:

> *"There is an evidence of financial constraints in many developing countries. The share of the government budget and GNP devoted to education is declining. Although the social and private rates of return to investment in education still seem to be high in many countries and the private demand remains strong. Governments are no longer willing to allocate an increasing share of public expenditure to education. The World Bank emphasized that the increasing demand for education on public finance at a time when government funds are stagnant or even falling in many developing countries can only resolved by either finding additional sources of financial support or reducing unit costs through greater efficiency. "*

The above notion seems to suggest that unless the government can mobilizes resources, particularly finance from stable sources; it will be unable to meet their core responsibilities in the social sectors and infrastructure or to provide the institutional framework needed for development.

The third most important factor affecting the expansion of postgraduates programs in Addis Ababa University is shortages of well-furnished classrooms. Due to this problem courses delay from beginning of schedules. Teachers also got difficulties to give make ups and to arrange schedules with proper time.
The data in the above table show that shortage of educational facilities (library service, laboratory services and ICT services), poor management system and

inadequacy of teaching aid or materials are ranked by respondents as fourth (4th), fifth (5th) and sixth (6th) major factors respectively.

To support the rank significance of the major factors the table point out the aggregate mean. The level of importance decrease as the mean point increased. Hence, according to there impact 1.37, 3.24, 3.25, 3.61, 3.87 and 4.85 aggregate means are score for shortage of qualified academic staff, financial problem, inadequate classrooms, shortage of educational facilities, poor management system and inadequacy of teaching material respectively. Lastly, the questionnaire asked, for 61 instructors and 256 student respondents "Do you think that the current capacity of your department can accommodate the expansion of the postgraduate program?"

The response of the above question indicate that 70.5 percent (43) of instructors and 76.6 percent (196) of students confirmed that, the current situation of departments have no capacity to accommodate, the expansion program of postgraduate. However, 14.8 percent (9) and 19.5 percent (50) of instructors and students respectively expressed their agreement to the question that current capacity of the University can accommodate the expansion of postgraduate program. The rest of the respondents 14.8% (9) of instructors and 3.9 % (10) of students did not decide their idea concerning the above question.

On top of this, the interview with the Director of Graduate Studies and Research revealed that graduate programs need ample educational inputs, and facilities. Therefore, the current capacity of the University was not adequate to implement expansion postgraduate programs. There were inadequacy of academic staff, shortage of buildings and education facilities.

According to the Director of, Graduate Studies and Research Office, alleviate shortages of academic staff, the University trying to increase salary of the staff, and recruit additional academic staff for various departments. Regarding the

shortage of classrooms, there are buildings under constriction in different part of the University campuses. Fore instance, constructions in FBE campus, Technology campus, Science campus and Veterinary campus are almost ready to begin functioning. These buildings might minimize the shortage of classrooms, reading space and laboratory (display rooms) services.

CHAPTER FOUR
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This final chapter of the thesis deals with major findings of the study. The conclusions drawn, based on the findings, and the forwarded recommendations are assumed to contribute to the alleviation of the problems of postgraduate expansion programs of the University.

4.1. Summary

The predominant purpose of this study was to examine the problems encountered in the postgraduate expansion program of AAU, which is designed in order to narrow the gap between the demand for and intake capacity of the graduate programs. To meet this objective, five basic research questions were raised. These involved:

1. What was the trend of applicants and accepted students of graduate programs of the University in the past five consecutive academic years? (1995 E.C-1999E.C)
2. What are the reasons for some departments to have high number of graduate students than the others?
3. To what extent are the academic staff and managers sufficient and capable for carrying out the expansion of graduate program?
4. To what extent are the University inputs and facilities sufficient for expansion of graduate program?

The study was conducted on twelve (12) graduate departments of the University. The subjects of the study were the Graduate School and Research Head, two Associate Deans of Postgraduate programs, four Department Heads, 75 instructors who were involved in masters programs and 272 graduate students.

The data for the study were obtained from primary and secondary sources by using structural interviews and questionnaires as well as secondary sources by assessing relevant documents.

The data obtained were analyzed using percentage, mean, and chi-square test and are interpreted. Thus, the findings of the study are summarized as follows based on the data analysis and interpretation.

Major findings:

1. The outcome of the study revealed that in the past five academic years i.e. the trend about the number of applicants for and number of accepted to graduate programs of Addis Ababa University were growing very fast. In 2003/04, the total number of applicants in the departments selected for this study was about 596. However, presently the numbers increased by 3490 (more than seven fold) in 2006/07 and reached 4094. Regarding accepted students to the selected departments, the number has grown from 269 in 2003/04 to 618 in 2006 /07. Even though the demand increased in a high rate, the in take capacity increasingly only by 349 students.
2. The study revealed that departments like MBA, TEFL, EdPM, Public Health and Environmental Science had large number of applicants in the past five academic years.
3. According to the findings, majority 245 (95.7%) of the respondents asserted that the major reasons that made them continue the postgraduate program were securing better employment and high income. These reasons were the influential factors for some departments to have very large number of applicants. In reveres, the students assumed that of some departments do not pave the way for better job opportunities and possibilities of high income.
4. Regarding students intake capacity in different departments of the program, there was a remarkable gap between departments. Fore

instance, Biology, TEFL and Environmental Science departments relatively took large number of applicants. Figuratively putting, the average percentile shows that about 30% of applicants had a chance to join the departments. However, departments like MBA, RLDS and Sociology, had very large number of applicants in comparison to other departments. However, the chance to join these departments was less than 8%.

5. As the study indicted, although graduate programs suffer from shortage of qualified academic staff, their quality matches with the standards set by HERQA. According to HERQA's standard, instructors who are involved in postgraduate programs should have minimum level of assistant professorship.
6. Referring to the percentage of full timer instructors, respondent agreed with the HERQA stated i.e. 75% of students should be full timers. The response of respondents was up to the stated standard. Similarly, turnover rate was very low that the above figure of full timers was not affected by turnover.
7. A great number of instructors indicated that because of shortage of academic staff, instructors have to cover more than ten (10) credit hours per week in graduate programs alone. In addition, instructors handle undergraduate classes in regular and continuing programs. Similarly; a good number of these instructors have seven and above graduate advisees per academic year. Nevertheless, HERQA's standard claims that only five students to be advice by one instructor effectively.
8. As pointed out by the result of the study, that graduate students have no representatives in management system of departments/ graduate school. Concerning this HERQA indicates the importance of student representatives in the managerial system of the program.
9. Concerning managerial capability of Faculty Deans and Department Heads, the study indicates that, they have high experience in putting planned activities in to action. However, as the programs depended on

public budget, shortage of finance in the program created obstacle to implement the planned activities and to achieve the intended goal.

10. According to the finding, majority (70 %) of respondents witnessed that large class size (more than 30 students) affects the effort to create conducive environment for the teaching and learning processes. Concerning this, majority of respondents indicated that optimal size in a class is around 20 students.
11. Respondents explained that postgraduate programs of the University are facing problems like inadequacy of well-equipped classrooms, library materials, reading rooms and well-equipped laboratories. Similarly, data obtained through interview indicated that there were shortages of well-equipped office for instructors, secretarial and stationary services and other facilities.
12. The data also revealed that the major constraints that affect the expansion of postgraduate program of Addis Ababa University, in order of their level of seriousness are shortage of qualified instructors in various fields of specializations, lack of finance to implement planned activities and inadequacy of well-equipped facilities (i.e. shortage of classrooms, laboratory equipments and library inputs).
13. concerning capacity of graduate school of Addis Ababa University, majority 75.4% of respondents confirmed that graduate expansion programs can not be effectively undertaken unless the university improves the over all potential of departments.

4.2. Conclusions

1. Based on the findings of this research the demand-increasing rate it found to be incompatible with the intake capacity arrived at the expansion program of the university. Hence, it can be concluded, as there is a need for applying efforts by the university to cup up with this gap.
2. It was also found that most students select their department because

they assumed that better employment opportunity and good income or salary are positively related to field of specialization. The past five-year trend indicated that departments like MBA, RLDS, and Public Health have high demand. In contrary departments like Archaeology and Linguistics have very low demand relative to others, variation of demand in different departments cause under utilization of resources, especially, qualified human resources. Moreover, some departments are forced to take large number of students which is over their capacity while other departments are accepting applicants below their capacity. Therefore, a uniform accepting regulation should be designed to keep the balance of intake capacity of different departments.

3. The quality of education at all levels highly depends on well-qualified teachers, among other inputs. Instructors are the pillar of the teaching learning process, their role in implementing educational policy, utilizing the available inputs and teaching the students are vital. Concerning academic staff, the findings of the study revealed that all instructors involved in postgraduate programs have minimum of assistant professorship in their academic rank. Thus, the level of academic rank fulfilled the standard, which HERQA set. However, there is high shortage of instructors in the programs. As the result majority of instructors are over loaded with lecture classes and large number of graduate advisees. Therefore, it is reasonable to conclude that the above-mentioned factors could affect the quantity rather than the quality of the graduate programs.
4. Institutions need competent managers and participatory management system to implement their objectives both efficiently and effectively. Toward this issue, the study showed that faculty deans and department heads are competent enough to implement the planned actions. Nevertheless, the management system of graduate programs was partially participatory as only instructors participate while students are excluded from decision-making processes on issues concerning them. HERQA

stated that graduate program managing process should put in place and make clear procedures for students to be represented on appropriate bodies that manage the programs. Thus, it is safe to conclude that management system of faculties and departments of postgraduate programs were not participatory.

5. To offer quality education and training in all level, students' academic performance, qualified and competent instructors, effective management system, adequate resources, facilities and availability of supportive staff in the right number and kind are among major inputs. More specifically the findings of the study revealed that, there is inadequacy of well-equipped classrooms, poor library services (shortage of reference materials and inadequacy of reading space), and inadequacy of laboratory equipments. These conditions lead to the conclusion that very little attention was given to the educational inputs by the concerning bodies. This may cause low quality of education in the program.
6. Regarding the capacity of the University to expand postgraduate programs, majority of the respondents expressed their agreement on impossibility of expanding the postgraduate program without adding additional educational inputs. Hence, it is possible to conclude that there is a shortage of educational inputs to expand the problem with the present capacity.

4.3. Recommendations

Based on the findings and conclusions, the following recommendations are forwarded anticipating that they could help minimize the problems associated with the expansion program of graduate students of Addis Ababa University.

1. In the past five years, Addis Ababa University expanded its postgraduate programs through different fields of specialization. Furthermore, the University takes action to improve its intake capacity. As a result, applicant number for the program was highly increased. However, still the University's

intake capacity is very limited; it could not satisfy most applicants and the need for high-level qualified personnel of the country. Thus, to alleviate this problem:

- MOE should exert an effort to expand postgraduate programs in other Universities; this could share the burden of AAU. It also minimizes shortage of high skilled manpower in the country.
- The University's management should have the will and commitment to improve the capacity of departments in terms of financial and human resources (especially academic staff) by increasing collaboration with stakeholders, donors and foreign Universities.

2. According to the findings, some departments have almost no demand (Archeology, for instance). To the contrary, departments like MBA had very high and unmanageable number of applicants. There is a great variation of demand for different specializations. Thus, the following measures could resolve the existing problems:
   - Departments, especially those with less number of applicants need further promotion for their programs and orient applicants about the overall status of their respective departments and courses, intake capacity, and selection criteria. Similarly, they should indicate job opportunities.
   - The government should encourage specializing in fields of studies with little applicants such as Archeology by offering incentives at the work place, which attracts potential applicants to such study areas. Furthermore, the government should give scholarship grant to those individuals who are working in those fields.
3. Qualified instructors are the key input to generate well-qualified and skilled work force. Nevertheless, the study revealed that currently the University is suffering from shortage of qualified instructors in various fields of specialization. To minimize these problems:

- As a short-term solution, expatriate and part-time academicians may be hired to join the postgraduate program. However, this is highly costly to the country. Thus, it is worthwhile to have long-term plan to reduce dependence on expatriate staff by substituting them with qualified local academic staff. Only until then short term or immediate solutions should be used.
- The University should be able to hold its academic staff by providing better salary and by creating conducive working environment and upgrade the lower level academic staff by providing an opportunity for further education with in the country and abroad.
- The University should strengthen its linkages with other Universities and international organizations with in the country and abroad. This will support to reduce the problems related to shortage of academic staff and finance.

4. It was found out that student participation in the managing system of postgraduate departments is non-existent. However, it is important to represent graduate students in management systems because it helps to solve students' problems and easy to get constructive feedback to the programs. Thus, the university should represent students from each faculty in the management body in order to deal with the problems fairly.
5. The findings of the study indicated that the University's graduate programs have problems with regard to adequacy of budget. Furthermore, majority of the respondents agreed that shortage of finance in their department is created because its source was only public fund. Therefore, to overcome these problems:
    - Government should implement cost sharing to postgraduate programs. Although the principal source of higher education funding must continue to be the government, or taxpayer, cost sharing must be seen as a way to supplement this revenue. The principal beneficiaries of cost sharing, students, and their families have to share the burden from the government.

- Graduate programs are highly related to research projects and experiments. Therefore, departments can generate income through research-based activities and build their financial capacity.

6. The outcome of study revealed that, there is shortage of classroom, poor library and laboratory services, and inadequate facilities for instructor (i.e. office facilities and secretary services). As the result teaching learning process is engulfed with difficulties. To over come these problems;
    - The government should build additional buildings, which serve as classrooms, library, laboratory, and offices.
    - The University should strongly attempt to convince NGOs and foreign Universities by supporting instructional equipments, i.e. reference books, laboratory equipments and computers. In addition, postgraduate departments should have their own well-equipped library and adequate ICT services. The University should also facilitate online library services in collaboration with international Universities. This may minimize shortage of up to date reference materials.
7. Finally, the uncovered and related issues to the study need to be further studied. Therefore, the researcher recommends other interested researchers extensively assess issues related to the demand and intake capacity of postgraduate programs of AAU as well as other Universities in the country.

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APPENDICES

Appendix: A

Addis Ababa University
School of Graduate Studies
Department of Educational Planning and Management

Questionnaire for instructors involved in postgraduate programs

The purpose of this Questionnaire is to ***assess demand and intake capacity of postgraduate programs of Addis Ababa University***. Your responses will be used only for research purpose. Your genuine response to each item is highly appreciated for it affects the entire outcome of the research. So fill it by devoting your time and exerting effort.

Thank you for your time!

I. *Instruction*

1. Read each of the instruction carefully and respond accordingly.
2. Encircle the letter of your choice.
3. Specify your answer for the questions that need specifications.
4. Give short and precise answers for open-ended questions.
5. Put an "✓" mark wherever required.

II. Background information

1. Name of the college/faculty _____ Department _____
2. Sex: a. Male ☐ b. Female ☐
3. Age: a. Under 35 ☐ b. 36-45 ☐ c. 46-55 ☐ d. 56 and above ☐
4. Level of education: a. BA/BSC ☐ c. PhD ☐
   b. M.A/MSC ☐ d. Other _____
5. Academic rank: a. Assistant lecturer ☐
   b. Lecturer ☐ c. Assistant professor ☐
   d. Associate professor ☐ e. Professor ☐
   f. Other _____
6. Field of specialization _____
7. Term of employment a. Full time ☐
   b. Part time/contract ☐
   c. Other _____
8. For how long have you thought in graduate program of this department? _____

III. Items

9. Does your department have enough instructors for its programs?
   a. Yes ☐ b. No ☐ c. No response ☐

10. Does the shortage of instructors is major problem of the department?
   a. Yes ☐ b. No ☐ c. No response ☐

11. Is the minimum academic rank of the instructors involved in graduate program of your department assistant?
   a. Yes ☐ b. No ☐ c. No response ☐

12. Are most instructors involved in graduate program of your department having professor in their academic rank?
   a. Yes ☐ b. No ☐ c. No response ☐

13. Are most instructors involved in graduate program of your department full time employees?
   a. Yes ☐ b. No ☐ c. No response ☐

14. Is academic staff turnover major problem in your department?
   a. Yes ☐ b. No ☐ c. No response ☐

15. If your answer for item **14,** is **yes** what are the major reasons for academic staff turnover?

a. _____
b. _____
c. _____

16. Do you teach in the undergraduate program in addition to your teaching in the graduate programs?

   a. Yes ☐ b. No ☐ c. No response ☐

17. Currently how many credit hours you teach in graduate program?
   a. 1-3 ☐ b. 4-6 ☐ c. 7-9 ☐ d. 10 and Above

18. If your answer for item **"17"** is **"d"** what is the reason for having this many credit hours per week?

a. _____
b. _____
c. _____

19. How many graduate advisees do you have in this academic year?
   a. 1-3 ☐ b. 4-6 ☐ c. 7-9 ☐ d.10 and Above ☐

20.. If your answer for item **"19"** is **"c"** or **"d"** what is the reason for having this many advisees ?

a. _____
b. _____
c. _____

21. As for as your knowledge concerted, how many advices can an instructor advise effectively?

a.1-3 b. 4-6 c. 7-9 d. 10 and above

22. Do students' have representative in management system of your faculty?

a. Yes ☐ b. No ☐ c. No response ☐

23. If your answer for item 22 is "No" the absence of students' representatives in management system can effect the intake capacity of the department.

a. Yes ☐ b. No ☐ c. No response ☐

24. Did your department participate in the expansion of graduate programs of the university?

a. Yes ☐ b. No ☐ c. No response ☐

25. Does your department participate in the expansion of graduate programs of the university?

a. Yes ☐ b. No ☐ c. No response ☐

26. Do instructors of the graduate program in your department participate in decision-making issues, which are related to graduate programs?

a. Yes ☐ b. No ☐ c. No response ☐

27. Do your department get adequate budget for implementing its planned activities of graduate program?

a. Yes ☐ b. No ☐ c. No response ☐

28. Rank the following budget sources of your department for graduate program purpose according to their importance.

No	Budget Sources	1 Strongly disagree	2 Disagree	3 Undecided	4 Agree	5 Strongly agree
1	Should be from Public fund					
2	Should be from Student tuition fee					
3	Should be from Donors assistance					
4	Should be from Research project					

29. How do you rate the experience and managerial competence of top administrators of your faculty/department?

Top Administers	Item	High	Medium	Low
Faculty Deans	Experience			
	Managerial competence			
Department Heads	Experience			
	Managerial competence			

34. If the following are criteria for students admission to be admitted to a graduate program of A.A.U. how do you rate them?

No	Selection criteria	1, very unimportant	2, unimportant	3, undecided	4, important	5, very important
1	Academic performance(CGPA)					
2	Minimum CGPA 2.00					
3	Minimum CGPA 2.50					
4	Entrance exam					
5	Work experience					
6	Personal interest					
7	Publication					

35. What is the current class size of the graduate program of your department?
a. below 20 ☐ b.20-29 ☐ c.30-39 ☐ d. 40 and above ☐

36. How many students should be assigned in a classroom to give effective teaching learning process in postgraduate programs of your department?
a. below 20 ☐ b.20-29 ☐ c.30-39 ☐ d. 40 and above ☐

37. Indicate rank of the adequacy of educational facilities for graduate program of your department in the table below. **1. Very adequate** **2. Adequate** **3. In adequate** **4. Very inadequate** **5. Do not know**

No	Item	1	2	3	4	5
1	**The library service**	X	x	X	X	X
1.1.	Reference books					
1.2.	Research journals					
1.3.	Dictionaries					
1.4.	Encyclopedias					
1.5.	Setting space					
1.6.	Computer					
1.7.	Internet access					
2	**The laboratory service**	X	x	X	X	X
2.1.	Laboratory materials					
2.2.	Display room					
2.3.	Setting space					
2.4	Equipped language Laboratory					
2.5	Equipped ICT Laboratory					
3	**Classrooms**					
3.1.	Adequate classrooms					
3.2.	Well furnished classrooms					
3.3.	Well equipped with white boards/black boards					
3.4.	Well equipped with audio-visual sets					
3.5.	Classrooms have enough electric power or sockets					

38. The following list of factors are assumed to influence high intake of graduate students in various departments of postgraduate studies. Rank them 1-6 **(According to their importance)** .

_____ 1. Shortage of qualified academic staff
_____ 2. Inadequate classrooms
_____ 3. Financial problem
_____ 4. Shortage of teaching aid materials
_____ 5. Poor management system
_____ 6. Inadequate of instructional/technological material

39. What major constraints do you observe in the expanding of graduate programs of A.A.U, particularly in your department?

39.1. Related to academic staff

a. _____
b. _____
c. _____

39.2. Related to management system

a _____
b. _____
c. _____

39.3. Related to finance

a _____
b. _____
c. _____

39.4. Related to educational materials/technologies and facilities

a. _____
b. _____
c. _____

39.5. Other problems

a _____
b. _____
c. _____

40. In your opinion, do you think that the current capacity of your department can accommodate the expansion of postgraduate programs?

a. Yes ☐ b. No ☐ c. No response ☐

41. If your answer for item **"40"** is **"No"**, what is the possible solution to expand graduate program?

a. _____
b. _____
c. _____
d. _____
e. _____

Thank You!

Appendix-B

Addis Ababa University
School of Graduate Studies
Department of Educational Planning and Management

Questionnaire for students involved in postgraduate programs

The purpose of this Questionnaire is to ***assess demand and intake capacity of postgraduate programs of Addis Ababa University***. Your responses will be used only for research purpose. Your genuine response to each item is highly appreciated for it affects the entire outcome of the research. So fill it by devoting your time and exerting effort.

Thank you for your time!

II. *Instruction*

1. Read each of the instruction carefully and respond accordingly.
2. Encircle the letter of your choice.
3. Specify your answer for the questions that need specifications.
4. Give short and precise answers for open-ended questions.
5. Put an **x** mark wherever required.

II. Background information

1. Name of your department_____

2. your under graduate department Major _____ Minor_____

3. Sex: a. Male ☐ b. Female ☐

4. Age: a. under 35 ☐ b. 36-45 ☐ c. 46-55 ☐ d. 56 and above ☐

5. Sponsored by: a. Government ☐ b. Self ☐ c. NGOs ☐ d. if other specify_____

III. Items

6. Rank the degree of importance of each of the following as the reason of pursuing your graduate programs.

No	Item	1, very unimportant	2, unimportant	3, undecided	4, important	5, very important
1	Better employment opportunity					
2	Possibilities for good income					
3	Study for its own sake/personal interest					
4	Scholarship grant incentives					

7. Does your department have enough instructors for its programs?
a. Yes ☐ b. No ☐ c. No response ☐

8. Does the shortage of instructors is major problem of the department?
a. Yes ☐ b. No ☐ c. No response ☐

9. Is the minimum academic rank of the instructors involved in graduate program of your department assistant?
a. Yes ☐ b. No ☐ c. No response ☐

10. Are most instructors involved in graduate program of your department having professor in their academic rank?
☐ a. Yes b. ☐ c. No response ☐

11. Are most instructors involved in graduate program of your department full time employees?
☐ a. Yes b. ☐ c. No response ☐

12. Do students' have representative in management system of your faculty?
a. Yes ☐ b. No ☐ c. No response ☐

13. If your answer for item **12** is "**No**" the absence of students' representatives in management system can effect the intake capacity of the department.
a. Yes ☐ b. No ☐ c. No response ☐

14. Did your department participate in the expansion of graduate programs of the university?
a. Yes ☐ b. No ☐ c. No response ☐

15. Does your department possess adequate administrative personal?
a. Yes ☐ b. No ☐ c. No response ☐

16. Does your department make advocacy about it and give orientation?
a. Yes ☐ b. No ☐ c. No response ☐

17. How do you rate the experience and managerial competence of top administrators of your faculty/department?

Top managers	Item	high	Medium	low
Faculty dean	Experience			
	Managerial competence			
Department head	Experience			
	Managerial competence			

18. If the following are criteria for students admission to be admitted to a graduate program of A.A.U. how do you rate them?

No	Selection criteria	1, very unimportant	2, unimportant	3, undecided	4, important	5, very important
1	Academic performance(CGPA)					
2	Minimum CGPA 2.00					
3	Minimum CGPA 2.50					
4	Entrance exam					
5	Work experience					
6	Personal interest					
7	Publication					

19. What is the current class size of the graduate program of your department?

a. below 20 ☐ b.20-29 ☐ c.30-39 ☐ d. 40 and above ☐

20. How many students should be assigned in a classroom to give effective teaching learning process in postgraduate programs of your department?

a. below 20 ☐ b.20-29 ☐ c.30-39 ☐ d. 40 and above ☐

21. Indicate rank of the adequacy of educational facilities for graduate program of your department in the table below. **1. Very adequate** 2. Adequate **3. In adequate** **4. Very inadequate** 5. Do not know

No	Item	1	2	3	4	5
1	**The library service**	X	x	x	X	X
1.1.	Reference books					
1.2.	Research journals					
1.3.	Dictionaries					
1.4.	Encyclopedias					
1.5.	Setting space					
1.6.	Computer					
1.7.	Internet access					
2	**The laboratory service**	X	x	x	X	X
2.1.	Laboratory materials					
2.2.	Display room					
2.3.	Setting space					
2.4	Equipped language Laboratory					
2.5	Equipped ICT Laboratory					
3	**Classrooms**					
3.1.	Adequate classrooms					
3.2.	Well furnished classrooms					

3.3.	Well equipped with white boards/black boards					
3.4.	Well equipped with audio-visual sets					
3.5.	Classrooms have enough electric power or sockets					

22. The following list of factors are assumed to influence high intake of graduate students in various departments of postgraduate studies. Rank them 1-6 **(According to their importance)**

_____ 1. Shortage of qualified academic staff

_____ 2. Inadequate classrooms

_____ 3. Financial problem

_____ 4. Shortage of teaching aid materials

_____ 5. Poor management system

_____ 6. Inadequate of instructional/technological material

23. What major constraints do you observe in the expanding of graduate programs of A.A.U, particularly in your department?

23.1. **Related to academic staff**

a. _____

b. _____

c. _____

23.2. Related to management system

a _____

b. _____

c. _____

23.3. Related to finance

a _____

b. _____

c. _____

23.4. Related to educational materials/technologies and facilities

a. _____

b. _____

c. _____

23.5. Other problems

a _____
b. _____
c. _____

24. In your opinion, do you think that the current capacity of your department can accommodate the expansion of postgraduate programs?

a. Yes ☐ b. No ☐ c. No response ☐

25. If your answer for item "24" is "No", what is the possible solution to expand graduate program?

a _____
b. _____
c. _____
d. _____
e. _____

Thank You!

Appendix-C

Addis Ababa University

School of Graduate Studies
Department of Educational Planning and Management
Interview Guide Questions

An Interview Guide Questions prepared to ***assess the Demand and intake capacity of student for postgraduate programs of Addis Ababa University.***

To be interviewed by Head of Graduate Studies and Research Office, Associate deans of postgraduate programs and Department Heads.

I. Objective

The objective of this interview is to collect relevant data on the assessment of university in puts that affect the intake capacity of student for postgraduate programs of AAU. Moreover, provide some solutions that need to be considered for better improvement.

Thus, hence the genuine concern and willingness of the person who is the charge to respond the interview strongly determines the success of the study, you are kindly requested to respond to the entire interview guide questions honestly.

Thank you in advance for your cooperation!

II. Personal Information

1. Address: _____
2. Sex : Male ☐ Female ☐
3. Age: _____
4. Role/position: _____
5. Qualification: BA/BSc ☐ MA/MSc ☐ PhD ☐
   Other (specify) _____
6. Field of specialization: Major _____
   Minor _____

Interview guide questions

1. What major constraints do you observe in expanding of Graduate Programs of A.A.U?

   1.1. **Related to Academic Staff**

   _____
   _____
   _____

   1.2. **Related to Management System**

   _____
   _____
   _____

   1.3. **Related to Finance**

      1.3.1. Source of budget.

      1.3.2. Adequacy of finance.

   1.4. **Related to Educational Materials/Technologies and Facilities**

      1.4.1. Adequacy of classrooms
      1.4.2. Adequacy of library service
      1.4.3. Adequacy of laboratory service

   e. **Other problems (if any specify)**

   _____
   _____
   _____

2. In your opinion, the current capacity of the university can accommodate the expansion of postgraduate programs?

   a. yes b. No c. No responds

3. What should be done to improve intake capacity of graduate studies of A.A.U.?

   1. _____
   2. _____
   3. _____

Thank You

APPENDIX D

Addis Ababa University
Graduate Programs

Colleges and facilities offer postgraduate programmes through the school of graduate studies

No	Faculty/College	Programmes Offered
1	College of social sciences	Master of Arts degree in History, Geography, Social Anthropology, Archeology, Political science and International Relations, PhD in History.
2	Faculty of Business and Economics	Master of Arts degree in Economics, Business Administration, Accounting and Finance
3	Faculty of Science	Master of Science degree programmes in Biology, dry land Biodiversity, Environmental Science, Chemistry, Earth Science, Physics, Mathematics and Statistics; and PhD in Biology, Chemistry, Mathematics and Physics
4	Faculty of Technology	Master of Science degree in Civil, Electrical, Chemical and Mechanical Engineering, Construction Technology and Management
5	College of Education	Masters degrees in Curriculum and Instruction, Educational Planning and Management, Educational Psychology, Science and mathematics Teaching, PhD in Educational Planning and Management
6	Faculty of Low	LLM degree programmein laws
7	Faculty of Medicine	Specialty certificates in Internal Medicine, Anesthesiology, Pathology, Paediatrics and Child Health, Surgery, Obstetrics and Gynecology, Ophthalmology, Orthopedic Surgery and Radiology and Masters degrees in Biochemistry, Community Health, Anatomy, Medical Microbiology, Parasitology and Medical Physiology, and PhD in Medical Microbiology, Medical Physiology
8	School of Pharmacy	Masters degree in Pharmaceutics, Pharmacognosy, Pharmaceutical Chemistry and Toxicology
9	Institute of Language Studies	Master of Arts degree in Linguistics, Literature, Philology, Teaching English as a Foreign Language (TEFL) and Teaching Amaric (TEAM) and PhD in TEFL
10	Faculty of Informatics	Master of Science degrees in Information Science, Computer Science
11	Faculty of Veterinary Medicine	Master of Science degree in Tropical Veterinary Epidemiology, Tropical Veterinary Medicine
12	Institute of Development Research	MSc. degree in Demography, M.A in Rural Development, M.A in Environment and Development
13	School of Journalism and communication	M.A. in Journalism and Communication
14	School of Social Work	M.A. in Social Work
	Regional and Local Development Institute	Master of arts Degree in Regional and Local Development Studies (RLDS)

Office of Registrar November 2006 Student Handbook.

DECLARATION

I, the undersigned, declare that this thesis is my work and that all sources of material used for the thesis have been duly acknowledged.

Name: Elias Sebisbe

Signature _____

This Thesis has been submitted for examination with my approval as a university advisor.

Name: **Seyoum Teferra (Prof.)**

Signature: _____

Date: _____

Addis Ababa University
February 2008