UNIT COST OF UNIVERSITY EDUCATION AND ITS ECONOMIC IMPLICATION FOR UNIVERSITY STUDENTS: A CASE OF SELECTED PRIVATE UNIVERSITIES IN UASIN GISHU COUNTY, KENYA

BY

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF ECONOMICS OF EDUCATION IN THE DEPARTMENT OF EDUCATIONAL MANAGEMENT AND POLICY STUDIES, SCHOOL OF EDUCATION, UNIVERSITY OF ELDORET, KENYA

MAY, 2021

DECLARATION

DECLARATION BY THE STUDENT

This thesis is my original work and has not been presented for the award of a degree in any other university.

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I dedicate this work to all university students in private and public universities in Kenya.

ABSTRACT

Education is a very crucial foundation for the advancement of any given nation in social, political and economic terms. This is because of the role played by education in enhancing economic growth, productivity, national development, and social equality. This is the reason why individuals, families and governments of different countries of the world continue to invest so much at all educational stages. The aim of this research work was to find out the unit cost of university education and its economic implication for students in private university campuses in Kenya, to be precise, the County of Uasin Gishu. This study's objectives were to; find out the unit cost of university education households incurred on their children in private universities, compare the unit cost of university education among private universities, determine the challenges that households incurred in their effort to finance their children pursuing education in private universities, and compare the unit cost of university education for graduate production across programs. The study was done basing on the theory of human capital. The research design that was used in this study was the descriptive design. This research work focused on 420 fourth year students and 2 deans of students of 2 private university campuses. A sample size of 205 respondents was used; 203 students and 2 deans of students. The respondents were selected using stratified random sampling, simple random sampling and purposive sampling techniques. Data was collected using questionnaires and interview schedule. As far as validity is concerned, content validity and face validity were adopted in this study. Cronbach's alpha co – efficient was used to measure reliability. Data collected was analyzed using descriptive statistics. The study findings revealed that majority of students spent more than Ksh.100, 000 on tuition fees in an academic year, more than Ksh.10, 000 on books and other materials, above Ksh. 3, 000 on clothing, more than Ksh.50, 000 on accommodation, more than Ksh. 25, 000 on transport, less than Ksh.25, 000 as pocket money, donations and trips in an academic year. Amount of tuition paid in the first private university was high than that paid by students in the second private university. Lack of enough finance for basic needs was the major challenge that households were facing in regards to financing university education. Other challenges included sanitation, delayed bursaries funds, delay of HELB loan and security. Bachelor of commerce in the first private institution was more expensive than that of the second private institution. The study concluded that majority of students spent more than Ksh.100, 000 on tuition fees in an academic year in the private universities. Besides amount of tuition paid in private universities, students incurred further expenses on books and other materials, clothing, transport, examination fee, pocket money and other miscellaneous expenses such as donations and trips. Lack of enough finance for basic needs, sanitation, delayed bursaries funds, delay of HELB loan and security were the major challenges households encountered in financing university education for their children. Private universities should invest in books and other materials so as to reduce the average amount of money spent on financing the education of university students incurred by households.

ABBREVIATIONS

CHE: Commission For Higher Education

CUE: Commission For University Education

EU: European Union

GDP: Gross Domestic Product

GNP: Gross National Product

HELB: Higher Education Loans Board

KESSP: Kenya Education Sector Support Programme

KIE: Kenya Institute of Education

LIA: Letters of Interim Authority

NACOSTI: National Commission For Science, Technology And Innovation

NGE: National Goals of Education

NGO: Non-Governmental Organization.

NTA: National Transfer Account

OECD: Organization for Economic Co-operation and Development

SPSS: Statistical Package For Social Sciences.

TSC: Teachers Service Commission

UNESCO: United Nations Educational, Scientific and Cultural Organization

LIST OF TABLES

LIST OF FIGURES

TABLE OF CONTENTS

ACKNOWLEDGEMENT

I highly appreciate my supervisors Dr. Lydia Kipkoech and Dr. Agness Oseko for their guidance throughout the entire time of working on this thesis. They took time to guide me through the development and completion of this work. I wish to thank Dr. Lydia Kipkoech for her commitment as HoD, department of Educational Management and Policy Studies, as she ensured that I commenced and successfully completed my thesis on time.

My greatest gratitude goes to my wife Leah Munyasi and our two children Daniel and Blessings. Thank you all for giving me time and moral support to concentrate on my academic work. My parents Nathan and Joyce played a key role in my education. I thank them so much.

Finally, I would like to thank all other people who directly or indirectly contributed to the completion of this work.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Higher education is a very important instrument for the social and economic development of an individual. Higher education also facilitates economic mobility. An educated labour-force is important to our nation's future economic development (Wandiga, 2006). Kenya as a country requires a highly skilled labour-force in establishments and businesses to address the demands of contemporary increasingly competitive world economy (Owino, 2003). This is in line with one of the objects of Kenya's national goals of education (NGEs), goal number (ii), that is, to enhance economic, technological, social and industrial needs for national development. What we mean by this is that education provision in Kenya should aim at promoting economic development, social development, technological development and industrial development which in turn will translate to national development

Kenya is aware of the accelerated technological and industrial changes taking place, especially in the developed countries. As a nation, we can only be part of this development if our education system made a deliberate effort to focus on knowledge and skills that will be able to prepare the youth for these changing global trends (KIE, 2002). This objective is also captured in one of the objects of the Paris declaration of vision 2030 which is; to build an infrastructure that is resilient, to foster a sustainable and inclusive industrialization and promote innovation. This is according to the Economic Affairs Department, Ministry of Finance Kenya (2015). Leading Kenyans in celebrating Jamhuri Day on 12th December 2018, President Uhuru Kenyatta

emphasized on his government's big 4 agenda, one of which is to expand the manufacturing sector hence increasing the creation of jobs.

The provision of higher education is through a public – private market which is very complex. There are very many people and different institutions making great contributions in the process of higher education provision. According to economics of education, an investment in education takes a long period of time before the investors reap its returns (Mingat & Tan, 2016; Gropello, 2006). That is why social and economic development is considered to be greatly enhanced by education. Education is the basis upon which any development in a nation is premised. Meyer et al. (2005) states that education is a valid determinant of well-being in regard to private goods and social goods, which results to rapid development at national levels and that of the entire world. Various countries, communities and individuals have been concerned with how to fund education because it is considered as an investment. Financing education is a very complex process. This is because education financing is done at pre-primary, primary, secondary and at tertiary levels of education. Economists have been trying to find ways of determining the average cost of education per student purposely to minimize the difficulties in financing education. For instance, the Organization for Economic Co-operation and Development, (OECD, 2011) pointed out that the average cost of education per student can be determined through dividing the total amount of money spend by institutions of education at a given level by the corresponding number of students enrolled in these institutions.

Another study was conducted by Delmonico (2001), who wanted to work out the mean cost of education per learner. He divided the total amount of money the state spend on education by the total number of learners. He then expressed the value obtained as a percentage of gross domestic product (GNP) per capita. This approach

was also used by the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2011) to establish the average cost of education per student in sub-Saharan countries, including Kenya. The problem is that the UNESCO (2011) utilized the formula in calculating the average cost of education per learner in primary schools and ignored other levels of education like higher learning institutions. Private cost of education was not considered as well.

Scholarly works of Mikiko, Takashi and Yuichi (2005) looked at the private cost of education. They worked out the unit cost of education per student for children in Uganda by looking at what the household spends on education. However, their calculating avoided inclusion of what the government spends on education. It is clear that these two methods ignore the government component of the cost of financing education that the National Transfer Accounts (NTA) methodology considers important, (Mason, 2011). This NTA approach puts into consideration the contribution of the government and the households to the cost of schooling in calculating average cost of education per student and disaggregates it by age and gender.

Research works of Bowen and Roth (2003) found out that the cost of education in tertiary institutions is usually money paid for the acquisition of the resources required to run these learning institutions. This includes cash outlays for the wages and salaries of personnel, the purchase of goods and services, student financial aid and the acquisition or use of plant and equipment. Simply put, the unit cost of education can be determined through dividing the total amount of money spend by the total number of students as proposed by Bowen and Roth (2003) that; "Traditionally, what passed as the average cost was calculated by simply summing up the total expenditure by an institution for all purposes and dividing it by the number of students. The result was

termed as the cost per student. For accuracy and precision in calculating the cost, steps are taken to make cost categories in advance.

Also, Owino (2003) pointed out some of the factors which determine the amount of financial support, in terms of loan and bursary, a student would get in Kenyan public universities. The factors included: income and expenditure of a family, place residence, place of birth and whether a student has parents or is an orphan. Moreover, the educational attainment of a learner's parents and the number brothers and sisters that a learner has in different institutions of learning. This study did not pay attention to unit cost element and its economic implication. Similarly, Mutegi (2005, 2015), set out to find out the average cost of education in public post-primary schools and its implication on students' enrollment rates in Tharaka South Sub-County, Kenya. In his two studies, he failed to pass particular attention to the unit cost of education and its economic implication for public secondary school students. Moreover, no focus was given to unit cost of public and/or private university education and its economic implication.

Therefore, this study focused on establishing the elements of education that make up the average cost of university education and its economic implications for private university students in the County of Uasin Gishu, Kenya. The study also focused on finding out the amount of money spent by households on education of students through buying books, transport, pocket money, and clothes. These cost variables were to be assessed in respect to their economic implication for university students in selected private university campuses in Uasin Gishu Devolved Unit.

1.2 Statement of the problem

The responsibility of education funding is mainly undertaken by the state in most of the developing countries. On the other hand, students, families, external partners, non-governmental organizations (NGOs), religious institutions, and private companies have been supplementing government's expenditure on education, (UNESCO, 2011). The concept of cost sharing in university education financing has been given a lot of significance. This is especially so in relation to the starting of Programs of Structural Adjustment, (SAPS) in poor nations in 1980s. The issue of sharing the cost was considered to be the best alternative way of meeting the cost of university education needs. The changes that are taking place in many poor economies are focused on transforming higher learning institutions and making them able to provide services of a particular nature to the communities that they serve. The changes are also meant to improve and make universities business entities which give people particular returns in terms of a producer and consumer relationship (Psacharopoulos, 2006; Pigozzi, 2006).

According to Azbrecht and Ziderman (2002), it is the benefits accrued to individuals that offers the guidelines and reasons why student have to pay tuition fees as part of arrangements for university financing. The role of student loans in enhancing access to and efficiency of higher education has been amplified by the efforts that have been made to shift part of the cost of university education that is incurred by the government to students or to parents. Robertson (2009), observed that the World Bank insists in particular that it is not possible to operationalize the concept of cost-sharing sufficiently minus an active loan program for students, where students can borrow funds to finance their education. The student loan scheme was commenced in the year 1974 in order to assist students to pay for their education at the university. It was

expected that the students use the money disbursed to them to pay their tuition fees as the government shouldered the other expenses.

In regard to the changes that were taking place in the education system and the high rate of enrolment that was being witnessed in Nairobi University at that time, a committee for grants was established in the year 1971. The mandate of the committee was to monitor all the planning processes, the development and the financing of the university (GOK, 2001). Enrollment sharply went up over the years. Public universities are ones that enrolled the highest number of students. The spike in enrollment that was witnessed resulted from a lot of emphasis that was being put on university education compared to the lower levels of education. For example, as at the year 2000, enrolment in public universities was about 42,508 students and in private universities there were about 7000 students (Leung, 2014).

However, this increase in enrollment did not go hand in hand with the increase in financing of university education by the finance ministry which was in charge of the funding of higher education (Munene, 2013). The researcher also observed that the funds to be disbursed were dictated by budgets for individual universities. However, the allocation was different following the difference in recurrent expenditure. Over the years, budgetary allocations for university education have always been below their needs. The public money available for funding all levels of education continuously got remarkably constrained with increasing enrollment. As a result, the government was forced to make some reviews on the policies of education. This process was guided by diverse sessional papers and reports. Some of the policies which the government would choose to implement in the education sector so as to realize its economic and social development goals were stated in these papers (Owino, 2003).

The Kamunge report of 1988 is one of them. It is the Kamunge report that recommended the total payment of boarding and catering fees for students in public schools, middle colleges and universities. This report was implemented by the government almost to the letter. This brought about a remarkable change in the financing of education and also relieved the government part of the burden of financing education (Bogonko, 1992). The implementation of the Kamunge commission report resulted to a great rise in the cost of education for parents and guardians, which in turn led to high dropout rates and persistent rewinding of classes. Since the year 2008, the government of Kenya in partnership with international bodies have been increasing funds going to education sector with the view of lowering the amount of money which households incur as they endeavor to provide education for their children at all the levels of education (Gudo & Olel, 2011).

Despite all these efforts, information on overall financial responsibility borne by parents with children in universities is missing. Absence of this information may lead to the stakeholders in the education sector not to act accordingly when addressing matters related to expenditure on education. Absence of this vital data on full education funding burden borne by households together with challenges of improving university education under tight budgetary constraints as well as the decry by civil societies, parents and of university education prompted this study to be carried out (Gudo, Olel & Oanda, 2011). This study therefore sought to determine the unit cost of university education incurred by households and the economic implication of the average expenditure of university education for university students in Kenya. The researcher sought to undertake this study in private universities as institutions that receive their funding mainly from households.

1.3 The purpose of the study

This research work set out purposely to find out the average cost of university educationin addition to its economic implication for students in private universities in Uasin Gishu County.

1.4 Objectives of the study

The major aim for conducting this research was to find out the economic implication of the unit cost of education at the university for students in private universities in Uasin Gishu County.

1.4.1 Specific objectives

i. To establish the unit cost of university education households incur and its economic implication for learners in selected private higher learning institutions in Uasin Gishu County, Kenya.

ii. To compare the unit cost of university education among private universities and its economic implication for students in selected private institutions of higher learning in Uasin Gishu County, Kenya.

iii. To determine the challenges that households encounter in financing university education for their children and its economic implication for students in private institutions of higher learning in Uasin Gishu County.

iv. To compare the unit cost of university education for graduate production across programmes and its economic implication on University students in selected private higher learning institutions in Uasin Gishu County.

1.5 Research questions

i. What is the unit cost of education at the university, and its economic implication for students in private universities in Uasin Gishu County, as incurred by households?

ii. How does the unit cost of university education compare among private universities and its economic implication for students in private institutions of higher learning in Uasin Gishu County?

iii. What challenges do households encounter in financing university education for their children and its economic implication for university students in private higher learning institutions in Uasin Gishu County?

iv. How does the unit cost of university education for graduate production compare across programs plus its economic influence for learners in private higher learning institutions in Uasin Gishu County?

1.6 Significance of the study

The findings of this study may be quite helpful to many players within the sector of education, particularly higher level education. First and foremost, educational planners and managers may use it as a guide to calculate the cost of producing a graduate at the university education level. The information can be used for planning and budgeting in public universities in Kenya. The information may also give an insight to the government on the pattern of education expenditures. The government may use the various cost concepts to come up with reasonable educational choices and decisions concerning public and private university education. For instance, the government may be able to project education cost for universities over the years. Consequently, this may assist in expanding existing higher education facilities or establish new institutions for higher education.

The results of this research may also be great help to those who formulate policies of education when it comes to addressing the issue of educational efficiency. Educational efficiency is established by assessing the level of output from education against the level of resource input to education. The concept of cost analysis is usually employed in determining possible cost reduction strategies and for policies of cost effectiveness in the provision of education. Households may also benefit in terms of planning for their children's education. An indication of the cost of every item in education can help families to budget for their children's education.

1.7 Justification for the study

The unit cost of education and it's economic implication for students in Kenya especially university education has not been adequately studied. The study aimed at using the unit cost of university education for selected private universities in Uasin Gishu County to establish its economic implication for university students in Kenya. This may in turn aid households and government at large in making informed decisions while investing in education for their children especially university education.

1.8 Assumptions of the study

This study was carried out on the assumptions that the average cost per student varies by the category of program, gender, university, distance of the university from the household and the location of the university.

1.9 The scope of the study

This study paid particular attention on fourth year students in private universities in Uasin Gishu County. This is because these institutions receives household funding that makes up part of the average cost of education at the university. The fourth year

students were preferred on the basis of the length of time they had spent in the institution hence better placed to give firsthand information in terms of the various educational costs and challenges they had encountered. The study also sought the views of deans of students from the selected private universities.

1.10 Limitations of the study

One of the limitations of this research was the challenge of uncooperative respondents especially the students for fear of lack of confidentiality. This limitation was addressed by assuring them of confidentiality with the information they volunteered to share out. It was also challenging to catch up with deans of students due to their busy work schedules. This was sorted by applying patience in an effort to meet them.

1.11 Theoretical Framework

This research was undertaken basing a theory that is referred to as the human capital. This theory postulates that educating an individual is the same as investing. It entails expenditures that are both direct and indirect. The theory of human capital was advanced by Schultz (1961). He stated that the more a person invests in education, the more the collective benefits that accrue to the society and the greater the profit a participant can accrue. It is surely an investment when someone gets education. Mincer (2008) observed that money and time used to provide or get education develops and enhances human capital formation. It is in light of this, therefore, that one should be in a position to make an estimation of the rate of return that accrue on investment such as these in the same way one would estimates returns on investment in physical capital. This means that when someone acquires land, it is considered as an investment that the buyer expects to get some good amount of returns. Similarly, a person investing in education is expected to envisage the benefits of doing so.

Slavin (2006) explains that human capital refers to what a person gains or attains in terms of abilities through education, training and job experiences. This theory was birthed and developed in the sixties due to the realization that the growth of income very much depended on the amount of education a person had attained. The theory claims that education and training imparts crucial information, abilities and perceptions which enhances the productive capacities of workers. As a result, workers future incomes are raised by increasing their lifetime earnings (Becker, & Tomes, 2006).

Glick and Sahn (2000) suggested that educational investment in girls in poor nations will be more sensitive to cost than educational investment in boys. In this regard, a pertinent policy impact is that a reduction on the cost of school by subsidizing can also reduce gender gaps. Fagerlind and Saha (2007) made their comment on the human capital theory. They remarked that this theory offered a foundation on which enormous social spending on education in both rich and poor nations are justified. In regard to economic theories, the human capital theory has a lot of influence as far as education in the west is concerned. What this implies is that the human capital theory has formed the basis upon which government policies are established for decades now. It is progressively regarded be very critical in determining the growth of the economy. Moreover, human capital theory is closely related to the democratic progression ideas found in majority of the western countries. These ideas or ideologies suggest that the endeavors that were made to increase investment in education were perceived to be leading to rapid growth of the economy for the society. For individuals, investments in education were found to be making them realize remarkable private economic gains (Fagerlind & Saha, 2007). The theory of human capital was very useful to this study considering how it affects the devotion by

the state to invest resources in education by establishing institutions of education at all educational levels and education funding. When our country got independence in the year 1963, there was no man power that was so much needed by the government to employ in the civil service and the other government departments in place of the whites (Mincer, 2008). Moreover, the government embarked on a mission to provide education with the aim of promoting and boosting the growth of the economy. In its subsequent development plans, the government set up commissions of education and endeavored to prioritize needs. This is evidence enough to the fact that the government is committed to investing in its citizens. This theory established whether the purpose for which the government and household are funding university education is being achieved (Becker & Tomes, 2006)

1.12 Conceptual Framework

This was the thinking behind the study. Kothari (2004) explained the idea of conceptual framework by describing it as a presentation which visual or written and gives the main variables to be investigated together with the expected results. It highlights the interrelatedness that there is between the independent variable and other variables as shown in figure 2.1:

Unit cost of university education households incur
- Fees
- Accommodation
- Transport

Unit cost of University Education;
- Different private universities

Unit cost of University Education across Programs;
- Education
- Business

Challenges in financing university education;
- Delayed helb loans
- Delayed bursaries

Economic Implications of unit cost of University Education
- Employment
- Wages & Salaries

Dependent

- Government policy

Independent variables   **Intervening Variable**

Fig 1.1: Conceptual framework of unit cost of University education and Economic implication

(Source: Author, 2019)

The household meets the cost of books, cloths, transport, food, communication, and tuition. The student total cost on education is determined by totaling all the expenditure incurred by the household on a particular student. If the household expenditure on university education to a particular student is high, it implies that it is not economical to invest in university education. High investment in university education leads to production of manpower for the economic growth of the country and high incomes for individuals.

1.13   Operational Definition of Terms

Cost of education: Expenditure incurred during acquisition of education.

Unit Cost: The average cost incurred by households on an individual

University student.

Student: An individual pursuing university education.

Tuition: Money paid to cater for instruction, household

incur on every student in university.

Household: A unit of dwelling with one or more people living together

and sharing resources together.

1.14 Summary of the Chapter

Chapter one focused on several items. It begins with the study background, then the problem statement followed by the objectives of the research. The justification of the research and the significance of the study have also been indicated in this chapter. Moreover, the study assumptions, the conceptual framework and the operational meaning of terms that were used in the research have been explained.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two covers the review of literature. Particular attention has been paid to the following areas; economics of education, the economic benefits of university education, a historical account of higher level education in Kenya, financing of education in Kenya at the university level, and the concept of unit cost.

2.2 Economics of education

Education economics refers to the study of factors of the economy which are related to education (Bassey, 2009). They includes the education demand, funding and supply of education and the comparative efficiency of different policies and programs of education. Looking at studies early conducted on the correlation between learning and outcomes of the labor market for people, the concept of education economics has expanded very fast generally covering all areas which are connected to education. Economics distinguishes another form of capital in addition to physical capital. This is the human capital. Three major economic effects can be expected with investment in human capital (Education). These included investment cost, returns on investment and increased productivity (Monk-Turner, 2014).

Investment in learning involves a cost in the same way any other investments do (Blaug, 2006). A larger part of the education expenditure in European nations is undertaken by the government. However, some expenses are shouldered by individuals. European Union (EU) governments spent up to about 8% of GDP on education in 2005. There is also the opportunity cost in terms of the forgone wages since it is not possible for students are work as they pursue their studies. The

education investment can approximately be said to have been up to about 10% of GDP in the European Union countries in 2005 (Lancrin, 2006) when the opportunity costs are included

According to Usher (2005), human capital investment has also an economic value. Calculating returns to human capital is more complicated because it is not possible to separate education from an individual in order to establish how much it gives. In order to make through this challenge, the benefits that accrue from investment in education are generally deduced from the wage differences between people with different education levels.

Raffo et.al (2007), established, by calculating from international data, that on average the benefits on education are about 13.4% per annum for the initial four years of attending school, 10.1% per annum for the following four years and 6.8% for each year beyond eight years. That is to mean that someone with 12 years of attending school can be expected to earn, on average, $1.134 + 1.101 + 1.068 = 3.303$ times as much as someone with no schooling at all. The researchers further postulated that economic wide, the impact of education on income has been estimated to be pretty meaningful. For instance, 65% of wages paid in advanced countries is payment to human capital while simply 35% is payment to raw labour. One of the factors that explain the higher GDP and therefore higher incomes in advanced economies is the higher productivity of the well-educated labour force

According to Becker and Tomes (2006), human capital is explained as the qualities and abilities of people that make them productive. That knowledge is the most important of these qualities. Human capital investment basically refers to education. The way investing in physical capital can pay off for a company is the same way

investment in human capital pays off for people. The earnings of highly educated people are generally higher compared to those of the larger population.

As far back as Adam Smith in the 18th century, economists had found out that production did not depend only on equipment or land but also depended on the abilities of people. But before the 1950's, when Becker first assessed relationship between education and incomes, little attention was paid to how such abilities fit with economic theory or public policy. Assessing the investment in education over a period of American History, Schutz (1968) concluded that benefits to investment in human capital or education investment were higher than the benefits on investment in physical capital. His work focused on the importance of the human factor on the growth of the economy. A look at his work shows that education (Human capital investment) play a major role in the economic growth of a given nation. This then justifies the commitment by governments and households to invest or spend on education.

2.3 The economic benefits of higher education

In the recent years, stakeholders in the education sector have been discussing about the role and nature of university education. This is because the need for its development has become obvious with the changing context of higher learning. There is a rapid growth being witnessed in the higher education system. Nonetheless, the system is making considerable effort to manage the spiking desire for higher level education (ICEF, 2013). That is to mean that the higher education demand has been going up all over the world and more so, in developing countries. But as individuals and governments make choices to invest in university education, it is imperative to understand and be aware of the economic and social benefits of doing so. Assessing the investment in education over a period of American History, Schultz (1968)

concluded that benefits that accrue from human capital investment were more than the benefits from investment on physical capital. He used an approach of measuring the significance of the human factor in the growth of the economy.

According to Johnston (2001), higher education is regarded all over the world to be very crucial to social and private aspirations. For private individuals, higher education is perceived to be leading to better paying jobs, social esteem, wide life options, intellectual stimulation and so on. For societies, he indicates that higher education is perceived to be important as far as technological advancement, productivity and other factors of economic growth and international competitiveness is concerned. He further explains that higher education molds and preserves the cultural values. That education is very important in fostering democracy, social justice, and equal opportunity.

Third level education gives a variety of advantages to students. These advantages includes increased wages, good health standards and reduced possibility of needing disability stipend. Greenstone, Looney, Patashnik, and Yu (2013), observed that a society with high level education is also widely of beneficial to the economy. This benefits for instance includes reduced cases of un-employment and better incomes even for employees who do not have college degrees (Moretti, 2004).

According to Valletta (2018), a degree from the university can used as a protection against joblessness at a time when the economy becomes weaker. People having tertiary education degrees experienced more stable jobs in the times of economic difficulties. Carnevale, Jayasundera, and Gulish (2016) asserts that the great majority of remainder jobs were taken up by college- educated workers. The question is whether obtaining a degree from the university is worth the investment? Several

scholars have tried to respond to this question in various ways. Bassey (2009) observed that even though the labour market returns to a college degree differs, more so considering the characteristics a student has and the study area that the student has chosen, those with post-secondary degree tend to have more earnings through their lifetime as opposed to them that do not have tertiary education. This observation was similarly made by (Blaug, 2006).

Mincer (2008) states that there is an underinvestment in higher level education due to underestimated benefits that accrue both to students themselves and to the general society. This is due to the fact that those who have graduated from the university make use of the education they acquired in ways that improve them and the entire society throughout their lives. He further explains that those additional perks include: non-market private benefits like good health, long life happiness among others, and externalities, (Social benefits). The social benefits include enhanced democracy, enhanced human rights, increased economic equality and reduced prison costs and lower welfare medical costs. Social benefits also include research in terms of yielding new knowledge its representation in the educational products of higher education.

 The larger society in turn benefits from all this because people who are informed in terms of technology get employed and absorbed into the society. This is why the integration of research and teaching at the postgraduate level is strongly advocated for. According to McMahon's assessment, the value of private, non-market benefits of higher education is about 122% or more of the financial ones. This means that the value of additional earnings is about twenty percent (20%) lower than the non-market benefits. These together defends the increased level of private and public educational investment, whereas a 52% value gives vital guidance for a suitable balancing

between public and private funding. About 53% of direct expenditures on tertiary education in the United States are already being shouldered by private individuals.

Becker and Tomes (2006) observes that during the process of teaching, education plays a vital role in identifying talents, strengthening leadership abilities in every part of the economy, making it possible for a wider application of higher level technology as well as encouraging innovation. Moreover, it improves the living standards of citizens and the quality of business life through preparing political leaders who are well educated, by preparing people of a nation to be good citizens, by producing a large number of volunteer leaders of the society who are required to enhance functionality of the society and by availing very many people that can bring human believes and a wide social prospect to the state, business and other activities that are practical. He also observes that higher education results to raised standards of the care and instruction given to children at home.

On his part, Gropello (2006) pointed out that people who are graduates have a greater level of civic participation and a better health status. Civic participation involves the likelihood to take part in voting and involvement in voluntary activities. Better health means minimal drinking, less smoking and low obese levels. Moretti (2004) explains some of the social gains that accumulate from undertaking an investing in high level education. He shows this in terms of higher incomes for every person in the job market, by comparing the incomes of rather the same employees in towns in the USA having varied amounts of graduates from tertiary institutions in the workforce. He realized that the causal relationship between the proportion of university graduates in a town's workforce and the mean income was positive. In his study, Moretti's main finding was that raising the supply of graduates to the job market was of much benefit to the society since it increased the incomes for all workers.

Education lowers crime and incarceration (Imprisonment), Lochener and Moretti (2001). They opined that education accrues non-market benefit to individuals. These benefits include making of good choices in life concerning marriage, fertility choices and the intergenerational effects. Intergenerational effects refer to a situation whereby well-educated couples tend to produce better offsprings, (Slavin, 2006).

2.4 The development of Kenya's higher level education

The advancement of Kenya's high level education can be tracked back to the East African region's period of high level education. This is as early as 1922 when Makerere was established by the Britsh as an East African technical college. Later, University of Nairobi was established in the year 1956. University of Nairobi was aimed at providing training for basic technical and commercial education (GoK, 1981; Wandiga, 2006). Three more universities were set up through an act of parliament in the 1980's. Informed by the presidential party report of 1983 on the second university, the Moi University was begun in 1984.

In 1985, Kenyatta University College was established as the third university. It had formally been a University of Nairobi's constituent college. The College of Egerton was made to be the fourth university in the year 1987. This college had also been initially a constituent college of the University of Nairobi. In 1984, the Jomo Kenyatta College of Agriculture and Technology was promoted and became a university. More and more universities have hitherto been established. This is especially because of continued demand for university education. These universities are both public and private. In Kenya Currently there are about 29 public institutions of higher education. In regard to private universities in Kenya, their number is about 33. Some of the private universities are chartered while others have Interim Authority Letters (LIA) (www.infohub.ac.ke, 2016).

Acts of parliament under the universities act of 2012 are the vehicle through which these universities are started. This act facilitates the process of establishing, development and growth of institutions of higher learning. It also provides for the accreditation and management of high level education institutions. The faster rate of expanding higher level education in Kenya was spontaneously responding to the rising need for high level education which was made necessary by a rising number of students graduating from the second level education institutions. This is in respect to the report of 2004 that was focusing on adjusting higher level education in Kenya. Examples of the private institutions of higher learning include the Africa Nazarene University, the Mount Kenya University, the Great Lakes University Kisumu, Daystar University, the Kenya Methodist University among others.

The operations of higher learning institutions is regulated by the University Education Commission (CUE). This is an agency which is under the Education Ministry. This commission was commenced on the basis of the Universities act No. 42 of 2012. It was meant to replace the Higher Education Commission (CHE), that had been established by an act of parliament (1985) to make development provisions for higher level education in Kenya. As a government body, the major responsibility of this commission is formulating the direction and policies of the higher education system and the development and assurance of the standards of higher level education in Kenya. It also oversees the financing, curriculum development and governance of all institutions of higher education institutions in Kenya.

2.4.1 Financing higher education in Kenya

In the year 1981, there was set up a committee for grants that was mandated to monitor the process of planning, development and financing of the university education, ((GOK, 1981). This was in regard to reforms that were being undertaken

in the education system and the high rate of enrolment that was being experienced in the University of Nairobi. This move guaranteed funding for the only university in the country three years early. According to Cheboi (2006), in the late 1980s long-term planning and financing of higher education was carried out no more on not-good-enough basis. Moreover, a number of incidences that were expected to change the process of planning and budgeting for university unfolded over this period of time. These incidences included the coup that was attempted in the year 1982.This coup made the university to be closed for a long time and the number of institutions for higher level learning in the country rose to four. These were Moi University in 1984, Kenyatta University in 1985 and Egerton University in 1987. There was also the establishment of the Higher Education Commission (CHE) in 1985. This commission was set up through an act of parliament. Intake greatly increased over the years in the public universities as a result of the emphasis that was being geared towards education at the higher level as compared with the lower levels of education, (Sihanya, 2008).

The high rate of intake into universities was not commensurate with the rise in funding of higher education by the finance ministry, which had been charged with the responsibility for the funding of higher learning. Universities were expected to establish their requirements and present operating budget requests that are justifiable. It is upon the presented budgets that funds were disbursed by the treasury for the subsequent academic year. The amount of money that was to be disbursed was established in accordance to the budgets of an individual university. The amount of money allocated would however differ with the spending plan according to the differences in the expenditure that recur (Chacha, 2004).

As the enrolment increased, public funds that were available for the funding of all the education levels were very much strained. It hence forced the government to restructure its policies for education as was guided by different sessional papers and reports. One of the reports was the Mackay Report of the year 1981. Another one was the sessional paper No 1 of 1986 which was focusing on the management of the economy for revitalizing growth. There was also the sessional paper No 6 of 1988 that was meant to address the issue of manpower training and education for the subsequent period of ten years going forward. The reports spelled out the policies that were to be adopted by the government in the education sector so as to realize its social and economic development goals (Olel, 2006).

Moreover, Manda et al. (2002) opined that the government was equally compelled to revisit its university financing policy following the changes that were taking place in financing structures of other social services that previously were fully financed by the state. Health services are a typical example of such social services. The Higher Education Loans Board (HELB) was set up as a semi-autonomous agency. The board was established through an act of parliament and was mandated to oversee the new student loan scheme. This was occasioned by the recommendation from the World Bank and other donors. HELB was also expected to develop policies which were to enable the state in funding education at the university level (G.o.K, 1995).

Sihanya (2008) revealed that the board receives applications from students in both government universities and chartered private universities. These applications are normally more than 30,000 in total. Usually, those who apply and succeed to get loans and bursaries of varying amounts are more than 75%. The amount of money received from the state is about 50% of the total loans disbursed to students by the board every year. The government however boosts this amount of loan using monthly recoveries

to about 50% of the total loans given out. In Kenya, no funding is given to private universities by the government to cater for expenses. Mutegi (2005) opines that these private institutions of higher learning depends on funds received in form of tuition fees to pay for developmental and recurrent costs. These universities rarely do get financial assistance from well-wishing institutions and individuals.

The Higher Education Loans Board gives loan facilities to students who are pursuing education at the university. A good number of students who benefit from these loans are from government sponsered universities. Munene (2013) observes that, for one to pursue education at Strathmore University, she/he requires about Kshs. 1.2 million for a degree course. What it implies here is that majority may not afford this. The good news is that the Higher Education Loans Board is currently advancing loans to students who are privately pursuing studies at private institutions of higher learning. When students apply for a loan from HELB and succeed, they qualify to receive at most Kshs. 60,000/= per annum for four years. The approach that HELB is using to advance loans to students pursuing university education is commendable. However, it is important tote that this approach is not sufficient enough in solving the funding puzzle for a private university where the amount of money required to a degree course is far higher than the maximum amount of loan a student can get. This means that students who are in need and are gifted have the opportunity to pursue university education at private facilities only if they can be guaranteed complete financial assistance.

2.4.2 The concept of unit cost

The cost of education comprises real resources in terms of sacrifices made and money paid to produce and educated person. Akangbou (2007) classified education cost into two categories. These are the private costs and social costs. When we talk about social

costs, we simply refer to the costs that are expended by the government or the society in order to educate its citizens. On the other hand, the private costs of education represents the money spent by an individual as she or he acquires education. The social cost of education comprise of direct and indirect cost where the direct cost represents the cost directly attributed to the provision of education to its citizens while the social indirect cost is the forgone earnings, i.e. what government is losing by providing education to its citizens.

Psacharapoulos and Woodhall (2007), further put the social cost of education into two categories. The first category being the recurrent social cost (RSC) and the second category being the capital or development social cost (CSC). The two are summed up to get the total social cost (TSC) of education. This can be expressed as RSC + CSC = TSC. The recurrent social cost is also viewed as the costs that recurs regularly (Akangbou, 2007). This cost comprises all the expenditures on services and services that give instant and short-lived benefits. This simply refers to money spent on commodities that are consumable like materials, workers' salaries, rent, interests and grants. All these are items financed through a financial year and therefore regarded as recurrent expenditure.

According to Akangbou (2007) the capital cost is the cost of education incurred to purchase assets which are durable. Examples of such assets include equipment and buildings. These assets are expected to produce returns through a longer period of tme. These classifications by Akangbou (2007) were contradicted to by Psacharapoulos and Woodhall (2007) who observed that the classification of recurrent and capital expenditure in the cost of education is based on the sources of funds. According to Psacharapoulos and Woodhall (2007), capital expenditures are funded

by loans from international agencies as well as other sources of income while the recurrent expenditures are funded by the current revenue.

Furthermore, Psacharopoulos and Woodhall (2007) assert that all the education inputs should be converted into monetary value so as to quantify the cost of graduate production at any given educational level. Thus, in the real cost assessment, planners in the education sector use the unit cost concept to a great extend as a foundation for the measurement of the cost of education, just like the economists. Based on Psacharapoulos and Woodhall (2007) concept of expressing all educational inputs into monetary value in school operations, several attempts have been made to calculate the average educational cost per student.

For instance, Fagerlind and Saha (2007), calculated the unit cost of education by dividing the amount of money the government spends on education by the number of students. They then expressed the resultant value as a percentage of GNP per capita. Mituko and Yuichi (2005) calculated the education cost per pupil by getting the mean amount of money spend on education per pupil from families that had children in secondary school or in primary school. They then worked out the mean spending per capital for both the primary school level and the secondary school level of education. After this, they obtained the ratio of primary school to secondary school education costs as 1:8:7. This was followed by applying the ratio so obtained to the spending on education by families with children in both primary level of education and secondary level of education. These two methods of establishing the unit cost have been faulted by Lee (2003). He introduced the concept of National Transfer Account which calculated the unit cost by combining the unit cost from the household and the government and then disaggregating it by age and gender.

Basu (2009) classifies the education cost into indirect costs and direct costs. Direct costs are those that are directly injected in the production process into a unit of output. Examples are raw materials, auxiliary materials and direct labour. The indirect costs are costs that are not directly in the production process so that it does not look directly in units of output and is often called overhead costs, such as indirect materials, indirect labour, rent, payroll tax, property tax, repair, maintenance of insurance and others. This is in accordance with the option of Johns, David, & Jonathan (2006) that: Education has both social costs and private costs. They also observe that social and private costs may both be direct and indirect. The costs that are direct are the ones incurred to cater for various items including boarding fees, books, and tuition fees. The costs of education that are indirect are contained in the earnings forgone because roommates are all people of working age. Forgone earnings are also a cost to the society since the total productivity of a nation reduces.

In Kenya, according to Gudo and Olel (2011), the education cost is born by household members and the government. Our country Kenya has focused on the education system by adopting the partnerships approach. Parties involved in these partnerships include the government, private investors, donors, local communities and religious organizations. Nevertheless, the amount of money incurred by the government on education in terms of recurrent expenditure has been so high compared to any other special sector. According to Nyang'au (2014), the survey of the economy of 2012 indicate that the ministry of education's recurrent budget went up to Kshs. 149 billion in 2011-2012 financial year from Kshs 134.1 billion in 2010-2011financial year. The expenditure for free primary education and for free day secondary education has risen up though most of the money is spent on salaries, wages and development. The private sector has been encouraged by the government to get involved in the supply

and development of education at all levels. Public universities have been encouraged not to depend so much on the government but instead exploit different sources of income.

It is also expected that universities endeavor to ensure that resources at their disposal are used in a more efficient and effective way. Plans have been put in place for the development of strategies to facilitate possibilities of working with partners to marshal more resources in order to fund college level training and education. The amount of public money that the government of Kenya spends on education is based on the sessional paper No. 107 of 2005. This paper basically focuses on education policy framework, training, research and the number two Kenya Education Sector Support Program (KESSP ii). It is also important to note that the basic education act of 2013 plays a role in determining the amount of money that the government spends on education. All these policy frameworks have seen the Kenyan government give the highest public education allocations to the education sector as compared to other Countries of East African (Kauffeldt, 2010).

For example, in the year 2004-2005 and the year 2005-2006, the total amount of money that was t spend by the government on education was twenty seven percent (27%) and twenty six percent (26%) of GDP respectively. However, the amount of money that the government spend on education in 2008-2009 financial year went down to about 23.9% (Republic of Kenya, 2012). The table below shows the expenditure in the three East African Countries as a percentage of GDP.

Table 2.1 Education expenditure in the East Africa Countries as a percentage of GDP (2013 – 2015)

Country	2013	2014	2015
Kenya	5.85	-	5.00
Tanzania	-	1.50	-
Uganda	2.34	2.29	2.42

(Source: Kenya Economic Survey, 2015)

The table above shows that Kenya spends quite a higher amount of money on education as a ratio of GDP compared to both Uganda and Tanzania. In the United States, higher education shows a considerable total investment. In the year 2009, institutions of higher level education got nearly $497 billion in terms of the total revenues which translates to about 3.6% (percent) of the GDP, including $144 billion in terms of federal grants and loans.

This research looked at the private (household) direct expenditure on education met by households to produce a university graduate in private universities. Indirect cost will be ignored in this study. According to Richard (2001), the opportunity cost (indirect cost) of education includes the value of students' time in terms of foregone earnings. Students' time is considered as a cost. This is for reasons that a student could be getting some form of income or engaged in some way or another had he or she not been using their time to study. Economically, the term opportunity cost is used to refer to the value of student's time. This is because it is not an out-of-pocket, direct expense.

Table 2.2: Unit cost of education incurred by the household

Direct	Indirect
▪ Fees actually paid by the family ▪ Transportation cost ▪ Family purchase of books, clothes ▪ Other items costs	▪ Foregone earnings ▪ Value of production foregone in a business farm of a family

(Source: Richard 2001)

Lee (2003) posits that private consumption in education is made up of books and fees, tuition, school supplies for all education levels, pre-school included, and expenses for tutoring. The exact method of establishing unit cost of education using the NTA approach varies. This variation is based on availability of information. For instance, in Taiwan self-improvement classes and materials for reference are considered as a component of unit cost. However, the common method of establishing the unit cost of education incurred by the households involves calculating by dividing all the cost met on all items in education by the 38 households.

2.4.3 Challenges in Financing University Education

Levin and Kater (2013) observes that there are some challenges which are both external and internal financing handicap that affect students whose parents are single. These challenges include lack of understanding of the financing structures of higher learning institutions in California and whether these can aim at the disadvantaged, the under-prepared, the minority, the disabled and those without homes as well as ensuring that there is accountability for continuing government and community resources and their willingness to continue financing.

According to Cheatham (2005) the Lakewood University opened in 1906 with 35 students. This institution is a comprehensive large research-based university in southern California and one of the most visible institutions of higher learning in California. Households whose children undertakes University education at Lakewood University cited major internal difficulties regarding finances. These include affordability and access as some of the major challenges faced by households in financing university education.

Student loans facility is an important tool in increasing access to University Education (Kipsang, 2007). At the moment, in many developing and developed countries, there are students' loan programmes. In countries like the U.S.A, Japan and Scandinavia, some loan programmes for students were found. These programmes are financed either by public money or backed by government guarantees, where the idea of borrowing from government funds students to finance education at higher level dates back from the 1940s to 1950s (Woodhall, 2007). A number of European countries and Canada are examples of other advanced countries which commenced students' loan facilities in the 1960s. Richard (2001) posits that the loans are not accessible by all the students. Delays in release of the HELB loans has ended up frustrating the households. This scenario has in turn compelled households to search for other optional sources of income for collecting sufficient funds to finance the University education. Johnstone and Marcucci (2010) acknowledges the fact that bursaries exists for funding less privileged children in the society, the amount disbursed per child is always meager and sometimes delays are experienced hence not being sustainable in financing university education. Parents are compelled to find out alternatives for sourcing funds to top it up with money raised through bursaries.

According to Johnstone and Marcucci (2009), a good number of countries in Western Europe and Asia did start undertaking some changes in the support system for students in the 1990s. These changes were informed by facts that there was an increased inadequacy of existing systems of helping students and cost. There was also a change to mass higher education systems from highly selective systems of higher education. Moreover, there was an urge to increase participation in higher level education without putting much a weight on public finance. Irrespective of all this efforts made, majority of the households doesn't have access to the funds provided by the government to facilitate financing of University Education.

It is not guaranteed that when students apply for bursaries they will automatically be awarded. No. When placing an application, a student supposed to attach application with credible supporting evidence. The types of bursaries available include the local authority transfer fund, Constituency development fund and HELB. The application process for these bursaries is normally very competitive. It is also important to note that at times politics takes centre stage. This is because Members of Parliament are the patrons of the identification and distribution committee. According to Gichuhi (2015), bursaries awarded to students are always not more than the cost of financing. He also observes that many at times there is always a minimum amount to be awarded. The bursary funds are usually distributed across the board and this leaves deserving students receive amounts far below what they would need as a security for participation and access. Participation and access to higher education by the rural populations and the groups that are disadvantaged socially and economically is still a serious concern in spite of the budgetary financial efforts made by the government. Education subsidies notably distributed in a skewed manner towards the rich minority

(ROK, 2005). This therefore makes the funding of education more inequitable and retrogressive.

2.5 Summary of the Chapter

The reviewed literature demonstrated that there is need to invest on education at university level. This is because university education prepares students to become professionals who are highly skilled and knowledgeable hence economic development. The review also revealed that there are unit cost variables of education such as fees, transport cost, pocket money and clothing. The aim of this research was to determine the unit cost of higher level education in private universities and its economic implications.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This part explains the design that was employed in carrying out this research. Sections contained here include the design of research, the study area, the targeted population, the sample and sampling procedure, the research tools, the validity and reliability of the instruments, administration of the research tools, analysis of data, ethical issues, summary of the chapter and the organization of study.

3.2 Study area

This research was carried out exclusively in private university campuses in the County of Uasin Gishu, Kenya. The County of Uasin Gishu is in the North Rift region. Eldoret town is its headquarters. This county is largely an agricultural zone inhabited by both large scale and small scale farming population. It borders Trans-Nzoia County to the north, Elgeyo-Marakwet and Baringo counties to the east, Kericho County to the south, Nandi Countyto the south west and Kakamega County to the west. It is located on a plateau and has a cool and temperate climate. Within Uasin Gishu are several public and private universities. This is why it was chosen, in addition to the fact that it is central to the aforementioned neighboring counties.

3.3 Research design

According to Kothari (2004), a design for research refers to a plan for the purpose of collecting and using information/data so as to facilitate the process of obtaining desired information with sufficient precision. In undertaking this research, the descriptive design of research was used. This research design is very vital in answering the questions of what, when, where, who, and how related to a given

research problem. Information about the current situation of a phenomena obtain using this design and the description of what exists with regard to variables or conditions in a situation is enabled (Mugenda, 2003). This research focused on finding out the unit cost of education at the university and its economic implication for students in selected private universities in Uasin Gishu County.

3.4 Target population

Creswell (2012), stated that a group of people or subjects with some related characteristics or attributes which the researcher desires to examine for the purpose of using the results obtained to make a generalization about is referred to as the target population. Gall and Borg (2009) also observed that the target population is made up of all the hypothetical group characters or a factual set of events or persons about which the researcher desires to make a generalization from findings of his or her study.

This study's target population was all the 420 fourth year students and two deans of students in two selected private University campuses in Uasin Gishu County. This in turn gave a total of 422 respondents. There are three private universities in Uasin Gishu. These include the Mount Kenya University, the University Of Eastern Africa-Baraton and the Catholic University of Eastern Africa.

3.5 Sample Size and Sampling Techniques

When we talk about a sample we simply are referring to a part of a whole population that a research intends to generalize the findings about (Quinlan, 2011). This research used 205 students as the sample size which was obtained out of the target population. The Yamen (1967) formula of determining the sample size was used. The Yamen formula is given as $n = N/1 + N (e)^2$. In this case, n stands for the size of the sample,

N stands for the size of the population and e represents the error margin fixed between 2%-5%.

The formula that was used to allocate the stratum samples is as shown below;

$$nh = \frac{n}{NH} \div N$$

Where;

h = The stratum number.

nh = The sample size in stratum h.

NH = The population size in stratum h, where h = 1, 2 etc.

N = The total population size.

n = The total sample size.

Table 3.1 below shows the sampling frame:

Table 3.1: Sample size

S/NO	University – Campus	Stratum	Target Population	Sample size	Percentage
1	1	4th Year students	219	106	51.7%
2		Dean of students	1	1	0.5%
3	2	4th Year students	201	97	47.3%
4		Dean of students	1	1	0.5%
TOTAL			**422**	**205**	**100**

(Source: Author, 2019)

Stratus were set up using stratified random sampling. The stratus are 4th year students and deans of students. The sample size of each strata is displayed in Table 3.1. Thereafter, the students were selected using simple random sampling technique while the dean of students were selected using purposive sampling technique.

3.6 Research Instruments

The tools that were put in use for the collection of data are questionnaire and a schedule for interview. The deans of students were interviewed so as to gather more information about unit cost of University education and its economic implications for university students among selected private Universities in Uasin Gishu County.

3.6.1 Questionnaires

Questionnaires were made use of to obtain information from the students. A questionnaire is able to measure the possibility of answers to be blunt, even and straight. This is according to an observation made by Kombo and Tromp (2006). A

questionnaire can be preferred to interview. This is due to the effect of social communion which works so strong in a face to face situation which can hinder individuals from explaining what they think it is not acceptable both from the professional point of view and social point of view.

The questionnaire consisted of two parts, that is, section (A) and section (B). Section (A) gathered demographic information from the students while section (B) gathered information on the cost aspects of education, with more focus on the amount of money spent by households and other sources to finance university education for their children. It also collected data on students' expenditure per programme and gender. The researcher chose to use questionnaires because the respondents were literate and hence could respond to the questions without being assisted. Questionnaires also enabled simultaneous collection of data by the researcher hence saving time.

3.6.2 Interview Schedule

When we talk of an interview schedule, we are simply referring to a list of questions which a researcher asks the respondents when interviewing them. This is according to Orodho (2009). In research, interviews are justified since they can be personalized. They can be personalized especially in regard to the respondent's knowledge and understanding. According to Kelly (2001), interviews permits a deeper understanding of the way people understand and connect different ideas. To collect information from deans of students, interview schedule was used. This gave the researcher a chance to personalize the respondents' understanding and knowledge. Interview schedule also gave the researcher an opportunity to interrogate and get more information from the respondents.

3.7 Validity and Reliability

3.7.1 Validity

Kothari (2004) observes that validity is the quality of a measurement procedure which gives respectability and accuracy. According to Mugenda and Mugenda (2003), the term validity is used to explain the meaningfulness and accuracy of deductions made on data from a research. What this means is that when we talk of validity we are referring to the level the results obtained are truly a representation of the situation under study when data gathered by a researcher is analyzed.

According to Mbwesa (2006), validity explains the degree to which one can establish the content and test validity of the research tools. Expert judgment was looked for in order to make sure that content validity is raised to commendable standards. Therefore, the supervisors were consulted to assist in ensuring that content validity of the research tool is enhanced as per the recommendations by Borg and Gall (2009). The supervisors were sought for assistance since they are experts in research. What they did was to assess the interview schedules and the questionnaires and then gave the researcher feedback. Face validity was established by checking the instruments to see the language used to construct the questionnaires. Questions that are wrong were removed.

3.7.2 Reliability

Now, when we talk of reliability, we are basically referring to what extend a research instrument does produce similar results or information with repeated trials. This is according to an observation made by Mugenda and Mugenda (2003). Because of the need to determine the research instruments reliability, the test re-retest method was utilized on the results and the cronbach alpha co-efficient of above 0.79 was noted as

a mark of acceptable internal consistency reliability which is agreed to by Mbwesa (2006). The pilot research was undertaken at Baraton University. The questionnaires were administered to 20 4th year students at Baraton University (10% of sample size). After one week, the very instruments were again administered to the same students in order to find out how consistency the instrument was. The alpha coefficient of Cronbach was utilized for reliability testing where a threshold value of ≥ 0.7 was used. According to Sreevidya & Sunitha (2011), any coefficient that is equal to or above 0.70 is considered sufficient for most cases). The cronbach alpha coefficient was 0.745 (74.5%) which was above the minimum required value of 0.7(70%). This ascertained that the tools for research were reliable and therefore analysis could be done further. The reliability results were as tabulated below:

Table 3.2: Reliability Test

Items	Cronbach's Alpha
Economic implications	.705
Unit cost of university education	. 751
Financing challenges	. 779
Composite	.745

(Source: Survey data, 2019)

3.8 Administration of the Tools

Data was collected from fourth year students from the selected private university campuses in Uasin Gishu County. This exercise was undertaken once a research permit had been attained from the National Council of Science and Technology. The researcher reported to the deans of students of the selected private university campuses before embarking on the collection of data and made a brief introduction to

respondents before administering the questionnaires. This was vital in explaining to the respondents the importance and the nature of the research. The researcher took the questionnaires to the respondents during the pilot and also at the time the main research was conducted. The questionnaires were later on picked after they had been filled up completely. The interview schedules for the deans of students were administered by the researcher.

3.9 Data Analysis Techniques

The meaning of data analysis is explained by Onwuegbuzie and Combs (2010), as the breaking down a whole into its components. Through assembly of parts, one comes to understand the integrity of the whole. After collection of data, the researcher carried out data cleaning. What this means here is that incomplete or inaccurate responses were identified and then corrected so that the quality of the responses was improved. Having done this, the data was coded and then fed into the computer to be analyzed using SPSS. Descriptive statistics were used to analyze quantitative data. Frequencies, percentages, means and standard deviation are the descriptive statistics that were used.

3.10 Ethical consideration

Several ethical factors were taken into consideration in order to make sure that the study was carried out in manner that is considered appropriate. The researcher ensured that there was informed consent and that participation was voluntary. All participants took part in the researcn on the basis of their own free will. They were also fully knowledgeable as far as the order of the research project and of any possible risks were concerned. Anonymity and confidentiality of the participants was equally assured. The participants were assured of confidentiality before data is gathered from them. Creswell (2008) observed that in research, the individuals participating need to

know the purposes and aims of a given study. In response to this, the importance of the research was explained to the participants by researcher as a way of building trust.

3.11 Summary of Chapter Three

As seen above, chapter three focused on research methodology. A number of items have been explained here including research design, study area, target population, sample and sampling procedure, research instruments, validity and reliability of the instruments, and ethical issues.

CHAPTER FOUR

DATA PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

The findings of the research are presented and interpreted in this section. The results of the study are also discussed here.

4.2 Response Rate

The research focused on unit cost of university education and its economic implication for university students in selected private university campuses in Uasin Gishu County. A total of 205 respondents were examined in this research. In this case, 205 questionnaires were given out. Out of the 205 questionnaires that were administered, 197 were collected back. Out of the 197 questionnaires that were returned, 20 were incomplete. This means that the number of questionnaires that were completed comes down to 177. This indicated 86.3% response rate whose summary is given in Table 4.1 below:

Table 4.1: Response rate

Issued questionnaires	Returned Questionnaires	Incomplete Questionnaires	Completed Questionnaires	Rate of response
205	197	20	177	86.3%

(Source: Survey data, 2019)

4.3 Respondents' Back Ground Information

The main focus of the demographic information of the respondents was on the respondents' sex, age, previous academic qualification, length of time at the institution, program, employment status, status of the parents, occupation of the

parents, marital status, family monthly income, number of siblings in primary school, secondary school, middle college and university and the students financier as shown in Table 4.2:

Table 4.2: Respondents' Demographic information

n = 177		Frequency	Percent
Gender	Male	67	37.9
	Female	110	62.1
Age group	18 – 23	82	46.3
	24 – 29	68	38.4
	30 – 35	27	9.6
	>35	10	5.70
Academic Qualification	KCSE Certificate	28	15.8
	Diploma	68	38.4
	University Graduate	81	45.8
Duration	3 - 4 years	82	46.3
	4 - 5 years	40	22.6
	5 - 6 years	28	15.8
	> 6 years	27	15.3
Program enrolled	Bachelor of commerce	66	37.3
	Education	70	39.5
	Any other (Specify)	41	23.2
Employment status	Employed	68	38.4
	Not Employed	109	61.6
Parents status	Both Alive	95	53.6
	One Alive	68	38.4
	Both Dead	4	2.0
	Separated	10	6.0
Fathers occupation	Business Person	28	15.8
	Farmer	67	37.9
	Teacher	28	15.8
	Any other (Specify)	54	30.5

Mothers occupation	Business woman	40	22.6
	Bank manager	28	15.8
	Farmer	28	15.8
	Unemployed	54	30.5
	Any other (Specify)	27	15.3
Marital Status	Married	56	31.6
	Not Married	121	68.4
Family monthly income	0 – 500	0	0.0
	5001 – 10000	40	22.6
	10001 – 15000	55	31.1
	15001 – 20000	28	15.8
	20001 and above	54	30.5

(Source: Survey data, 2019)

From the findings, 67 (37.9%) of the students were male while 110 (62.1%) were female. This means that most of the students in the private universities were female. This is similar to the findings of Chacha (2004) female students forms the largest group of the students' population in private universities across the world. In regards to age group, 38.4% (68) of the respondents were aged between 24 to 29 years, 46.3% (82) of them between 18 to 23 years, 9.6% (27) between 30 to 35 while 5.7% (10) of the respondents were above 35 years. A large number of the students in these institutions are aged 18 to 23 years. Cheboi (2006) opined that the age bracket for majority of university students is between 18 to 23 years which resembles the results of this research.

In relation to previous academic qualification, 81 (45.8%) of the respondents had no other academic certificate other than the Kenya certificate for secondary education, 68 (38.4%) had diploma while 28 (15.8%) were university graduates. Majority of the students in these private institutions are those whose previous academic qualification

is secondary education. Munene (2013) noted that the very many students that go for education at the university were the ones with secondary education. In an effort to determine the duration the student has been in the institution, majority of the students 82 (46.3%) had been in the institution for a period of between 3 to 4 years, 40 (22.6%) of them between 4 to 5 years, 28 (25.8%) between 5 to 6 years and 27 (15.3%) over 6 years. The study period for a degree course is 4 years, therefore since majority of the students had been the institutions for a period between 3 to 4 years then it implies that they were within the 4 academic years prescribe for a normal degree as elucidated by (Nyangau, 2014).

When the students were questioned about the state the program that they were undertaking at the institutions, it came out clear that 70 (39.5%) were undertaking a bachelor of education degree, 66 (37.3%) bachelor of commerce while 41 (23.2%) were either undertaking information technology, human resource management among other key disciplines. Similar findings were found by Gudo et al. (2011) that most students in Kenyan universities are undertaking a degree in education. In regards to employment status, 109 (61.6%) were un-employed while 68 (38.4%) were employed. The implication is that a good number of students in these private institutions of higher learning are un-employed. This agrees very well with the findings of Kauffeldt (2010) that most of the students in universities in Kenya are un-employed. In relation to parents status, 95 (53.6%) were both alive, 68 (38.4%) one alive, 4 (2.0%) both dead and 10 (6.0%) separated. Majority of the student's parents are all alive. Besides, 67 937.9%) of the students revealed that their fathers were farmers, 54 (30.5%) revealed that their father was either unemployed, a doctor, mechanic, engineer, accountants, revenue officers among others, 28 (15.8%) revealed that their father was

a business person while 28 (15.8%) teachers. Fathers of a bigger number of the respondents are farmers as illustrated in Table 4.2 above.

In a bid to establish the mother's occupation, 54 (30.5%) were unemployed, 40 (22.6%) business women, 28 (15.8%) farmers, 28 (15.8%) bankers while 27 (2.3%) were either police women, administrators, secretaries, teachers and many more. Furthermore, 121 (68.4%) of the students were not married while 56 (31.6%) of them were married. This implies that most of the students are not married. In regards to family monthly income, 40 (22.6%) of the families earned an income of between Ksh.5, 001 to Ksh.10, 000, 54 (30.5%) earned above Ksh.20001, 28 (15.8%) earned between Ksh.15, 001 to Ksh20, 000, 55 (31.1%) between Ksh10001 to Ksh15000 and none earned between Ksh. 0 to Ksh.500 in a month. The students were asked to give the number of siblings in primary school, 96(54%) of the respondents had less than 5 of their siblings in primary school, 54 (31%) had more than 5 of their siblings in primary school while 27 (15%) had no sibling in primary school.

Figure 4.1: Number of siblings in primary school
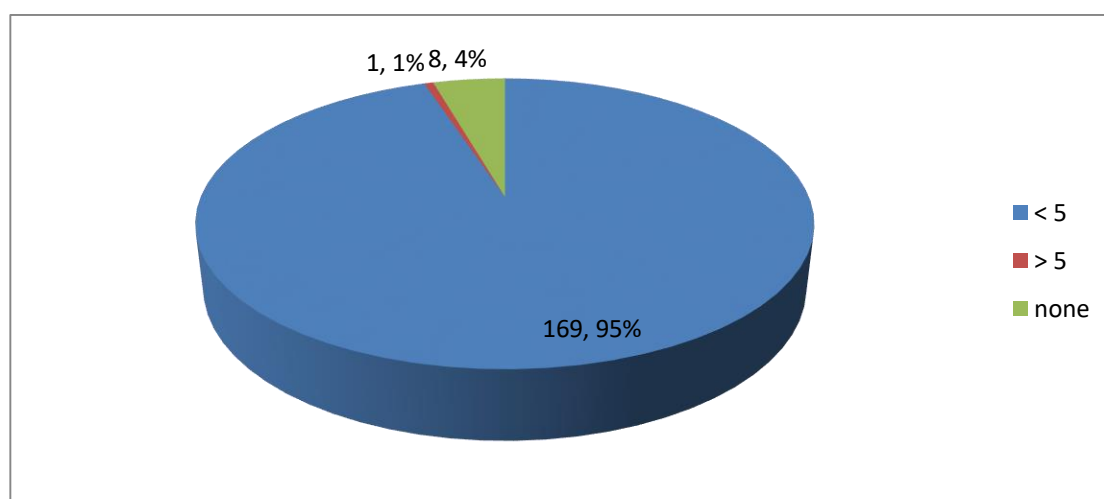
(Source: Survey data, 2019)

The researcher also wanted to establish the number of siblings the participants were having in secondary school, 141 (80%) of the students revealed that they had less than five siblings who were in secondary school, 27 (15%) had more than five siblings in secondary school while 9 (5%) had no siblings in post-primary institution as illusrated in Table 4.3: The research is in agreement with the findings of Manda et al. (2002) who noted that the number of children a parent can have in secondary school are less than five.

Table 4.3: Number of siblings in secondary and middle college

n = 177		Frequency	Percent
Number of siblings in secondary school	< 5	141	8.0
	> 5	27	15.0
	None	9	5.0
Number of siblings in middle college	< 5	67	37.9
	> 5	56	31.6
	None	54	30.5

(Source: Survey data, 2019)

In a bid to establish the number of siblings in middle college, 67 (38%) of the students had less than 5 siblings in middle college, 56 (32%) had more than 5 siblings in middle college while 54 (30%) had no student in middle college. This implies that majority of the students had less than 5 of their siblings in middle college which is similar to the findings of (Kirchsteiger & Sebalda, 2010). Finally, the study aimed at finding out the number of learners in university, 169 (95.5%) had less than 5 of their siblings in university, 1 had more than 5 siblings in university while 8 had none of their siblings in university. Cheboi (2006) also found that on average a student cannot

have more than five siblings undertaking a degree programme at the same time he or she is undertaking a degree too. The results are captured in Figure 4. 2:

Figure 4.2: Number of siblings in University
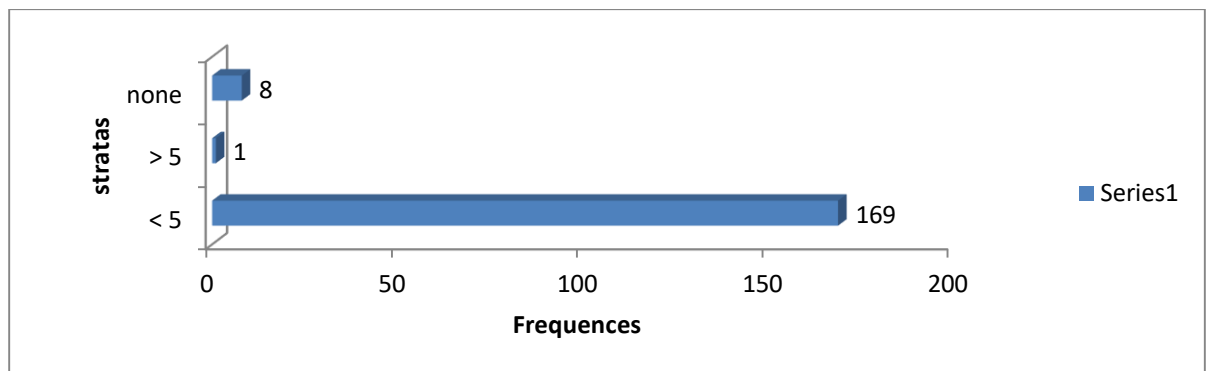
(**Source: Survey data, 2019)**

In relation to the person who finances the students education, 67 (37.9%) were financed by donors, 28 (15.8%) by mothers, 28 (15.8%) by fathers, 27 (15.3%) by both parents and 27 (15.3%) by guardian as illustrated in Figure 4.3 below:

Figure 4.3: Financiers of Education
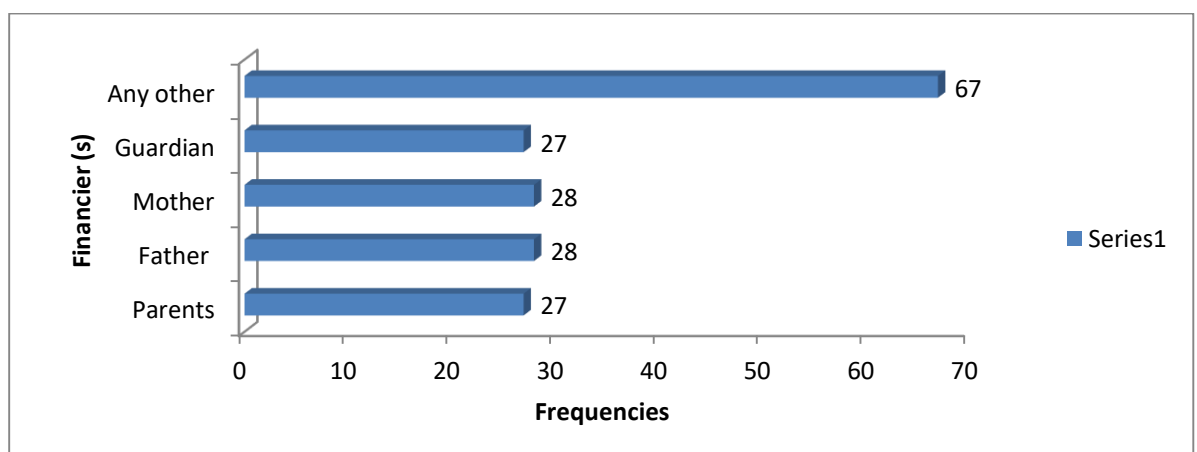
(**Source: Survey data, 2019)**

4.4 Unit cost of University Education Households incur and its Economic

Implication

The first objective was to determine the unit cost of education at the university households incur and its economic implication on learners in selected private institutions of higher learning in the County of Uasin Gishu, Kenya. The research found that the amount of tuition paid in a year in the private universities, 63 (35.6%) of the student revealed that they spent more than Ksh.100, 000 on tuition fees in academic year, 28 (15.8%) used about Ksh.40, 000 and Ksh.60, 000, 28 (15.8%) used about Ksh.20, 000 and Ksh.40, 000 while 4 (2.3%) spend less than Ksh.20, 000. This implies that majority of the students spend over Ksh.10, 000 in an academic year in the private universities. The item realized a mean of 3.3051 and a variation in responses of 1.76700. The study findings are similar to the findings of Chacha (2004) on average a student spends more than Ksh.100, 000 on tuition fees in an academic year in Kenyan Universities.

In regards to the amount spent on books and other materials, 82 (46.3%) of the students spent more than Ksh.10, 000 on books and other materials, 67 (37.9%) spent between Ksh.5, 000 and Ksh.10, 000 while 28 (15.8%) spent less than Ksh.5, 000. The itemized mean of the item is 2.3051 and standard deviation is .72897. This implies that majority of the students spend over 5000 shillings on books and other materials. In regards to amount spent on clothing, 83 (46.9%) of the students spent between Ksh3, 000 to Ksh.5, 000, 67(37.9%) spent less than Ksh.3, 000 while 27(15.3%) spent more than Ksh.5, 000 on clothing. The implication here is that a larger number of the students in the private institutions spend above Ksh.3, 000 on clothing's. This is explained by an average of 1.7740 and a standard deviation of .69479. This is similar to the findings of Manda et al. (2002) that expenses that

escalates university education is the amount of money parents spend on books and other materials, clothing's etc. The results of the research were as shown in Table 4.4:

Besides, on amount spent on accommodation, 83(46.9%) of the students spent more than Ksh.50, 000 on accommodation in a year, 67 (37.9%) spent between Ksh.30, 000 to Ksh.50, 000, 27 (15.3%) spent less than Ksh.30, 000 on accommodation. The implication of this is that a large number of the students spent more than Ksh.50, 000 on accommodation. The item realized an average of 2.3164 and a standard deviation of .72411. In relation to amount spent on transport, 83 (46.9%) of the students spent more than Ksh.25, 000 on transport, 67 (37.9%) of the students spent between Ksh.20, 000 to Ksh.25, 000 while 27(15.3%) of them spent less than Ksh.20, 000 on transport. The itemized mean of the item is 2.3164 and the standard deviation .72411.

In a bid to establish the examination fee incurred by the students, 96 (54.2%) of the students incurred a fee of less than Ksh.30, 000 on exams, 54 (30.5%) of the students incurred more than Ksh.40, 000 while 27 (15.3%) of the students incurred between Ksh.30, 000 and Ksh.40, 000. This implies that majority of the students paid an examination fee of less than Ksh30, 000. The mean of the item was 1.7627 and a standard deviation of .89199. In regards to pocket money, 82 (46.3%) of the students spent less than Ksh.25, 000 on pocket market, 67 (37.9%) spent between Ksh.25, 001 to Ksh.30, 000, while 28 (15.8%) of the students spent more than Ksh.30, 000. The mean of the item was 1.6949 and .72897. This implies that majority of the students used less than Ksh.25000 as pocket money. Meyer et al. (2007) also found that examination fees and pocket money play a role in determining the average cost of education at the university.

In regards to other expenditures, 82 (46.3%) of the students paid between Ksh.20001 to Ksh.30, 000, 68 (38.4%) spent less than Ksh.20, 000 while 27 (15.3%) of the students spent over Ksh.30, 000. Other expenditures included, donations, trips among others. The mean of the item was 1.7684 while the standard deviation was .69700 as shown in Table 4.4: The composite mean of the unit cost of university education is 2.1554 and the standard deviation is .11151.

Table 4.4: Unit cost of University Education Households incur and its Economic Implication on Students

	Frequency	Percentage	Mean	Std. Deviation
Amount of tuition paid			3.3051	1.76700
< 20000	4	2.3		
20001 – 40000	28	15.8		
40001 – 60000	28	15.8		
60001 – 80000	27	15.3		
80001 – 100000	27	15.3		
> 100001	63	35.6		
Amount spent on books			2.3051	.72897
< 5000	28	15.8		
5001 – 10000	67	37.9		
> 10000	82	46.3		
Amount spent on clothing's			1.7740	.69479
< 3000	67	37.9		
3001 – 5000	83	46.9		
> 5000	27	15.3		
Amount spent on accommodation			2.3164	.72411
< 30000	27	15.3		
30001 – 50000	67	37.9		
> 50000	83	46.9		
Amount spent on transport			2.3164	.72411

< 20000	27	15.3		
20001 – 25000	67	37.9		
> 25000	83	46.9		
Examination fee			1.7627	.89199
< 30000	96	54.2		
30001 – 40000	27	15.3		
> 40000	54	30.5		
Pocket money			1.6949	.72897
< 25000	82	46.3		
25001 – 30000	67	37.9		
> 30001	28	15.8		
Other expenditures			1.7684	. 69700
< 20000	68	38.4		
20001 – 30000	82	46.3		
> 30001	27	15.3		
Composite values			2.1554	.11151

(Source: Survey data, 2019)

The current study agrees with the findings of Richard (2001) that the opportunity cost of education includes the value of students' time which is measured in terms of foregone earnings. The students' time is considered as cost since the student could be using that time to earn some income or undertaking some other duties if he or she was not using time to pursue studies. He term opportunity cost is economically used to explain the value of the students' time. This is because it is not a direct expense from the pocket. The study further agrees with Johns et al. (2006) that investment in education has both social costs and private costs, which may be both indirect and direct. Direct costs are incurred for tuition, fees, books, room and board. The costs of education that are indirect are represented in the forgone earnings because roommates are all working age people. Earnings that are forgone can also be regarded as a cost to society because the total productivity of a nation is greatly reduction in. As per table

4.4, on average a household incurs approximately Ksh. 219,000 on a student in a private university in an academic year.

4.5 Comparison of the unit cost of University Education among Private Universities

The second objective was to compare the average cost of university education among private universities and its economic implication for university students in selected private universities in Uasin Gishu County, Kenya. So as to realize this, cross tabulation was undertaken to determine the differences in the unit cost of higher level education among private universities. It is evident that amount of tuition paid in the first private university was higher than that paid by students in the second private university. Most students in the first private university paid tuition fees of between Kshs. 40000 and above Kshs. 100000. Majority of students paid less than 20000 in the second private university. The results of cross tabulation revealed a chi square value of 1.148 which was significant statistically with a p value of 0.040 as indicated in Table 4.5: This study findings are similar to the findings of Olel (2006) that the amount of tuition paid for university education in Kenya is not less than Ksh. 100, 000 per annum.

Table 4.5: Cross Tabulation of Amount of Tuition Paid Among the Universities

		Amount of tuition paid for you in the last 12 month by your family						Cross tabulation	
		< 2000 0	2000 1 – 4000 0	4000 1 – 6000 0	6000 1 – 8000 0	80001 - 10000 0	> 10000 1	Chi square	P valu e
Private Universiti	1	17	14	15	14	14	14	1.14 8[a]	.04 0

es	2	23	14	13	13	13	13
Total		40	28	28	27	27	27

(Source: Survey data, 2019)

In regards to amount spent on books and other materials, in institution "2" majority of the students (76) spent above 5000 on books while 72 spent over 5000 in the first private university. The implication of this is that a great number of the students in private institution "2" of higher learning spent more money on books and other materials thus rendering it more expensive. The chi square results are .559 with a p value of .041 as shown in Table 4.7: The research findings were similar to those of Manda et al. (2002) that expenses that escalates university education is the amount of money parents spend on books and other materials, clothing's etc.

Table 4.6: Cross Tabulation of Amount spent on Books and other Materials among the Private Universities

		Amount spent on books and other materials			Cross Tabulation	
		< 5000	5001 – 10000	> 10000	Chi square	P value
Private	1	15	31	42	.559[a]	.041
Universities	2	13	36	40		
Total		28	67	82		

(Source: Survey data, 2019)

In a bid to compare the amount spent on clothing among the private universities, students in private university "1" spent much money on clothing than those of private university "2". This renders private university "1" expensive than private university "2". Chi square value was .513 with a p value of .004 as tabulated below:

Table 4.7: Cross Tabulation of Amount spent on Clothing among the Universities

		Amount spent on clothing			Cross Tabulation	
		< 3000	3001 – 5000	> 5000	Chi square	P value
Private	1	31	43	14	.513[a]	.004
Universities	2	36	40	13		
Total		67	83	27		

(Source: Survey data, 2019)

In regards to amount spent on transport, students of private institution "2" spent much money than those of private institution "1". This implies that most student stays far away from the institution and hence the reason for upsurge in the amount of money that they spend on transport. The chi square value for the item is .513 with a p value of 0.034 as indicated in the Table 4.8:

Table 4.8: Cross Tabulation of Amount spent on Transport among the Universities

		Amount spent on transport			Cross Tabulation	
		< 20000	20001 – 25000	> 25000	Chi square	P
private	1	14	31	43	.513[a]	.034
universities	2	13	36	40		
Total		27	67	83		

(Source: Survey data, 2019)

The researchers sought to compare the examination fee among the private universities considered in this study. In regards to examination fee private university 1 was more expensive that private university "2" as the students who paid an examination fee of

over 30000 was more than those in university '2'. The chi square value was .272 and the p value was. 873 as tabulated below:

Table 4.9: Cross Tabulation of Examination Fee among the Universities

		Examination fee			Cross Tabulation	
		< 30000	30001 - 40000	> 40000	Chi square	P
Private	1	46	14	28	.272[a]	.873
Universities	2	50	13	26		
Total		96	27	54		

(Source: Survey data, 2019)

Pocket money was assessed also in a bid to establish the difference among the two universities in regard to the amount of money the student used as pocket money. The research noticed that student in private university '2' spent much in regards to pocket money that those of institution '1'. The chi square value was .559 with a p value of .012 as shown below: Meyer et al. (2007) also found that pocket money varies across universities depending of the economic set up where a certain university is situated.

Table 4.10: Cross Tabulation of Pocket Money among the Universities

		Pocket Money			Cross Tabulation	
		< 25000	25001 - 30000	> 30001	Chi square	P
private	1	42	31	15	.559[a]	.012
universities	2	40	36	13		
Total		82	67	28		

(Source: Survey data, 2019)

Lastly the study sought to assess student miscellaneous expenses among the two universities. Students of private university '1' spent more money on miscellaneous expenses than private university institution '2'. On average they spent more than

Ksh.20, 000 on miscellaneous expenses. The chi square value was .315 with a p value of 0.023. The implication of this is that the amount of money spent on miscellaneous expenses was more in university '2' than '1' as shown in Table 4.11:

Table 4.11: Cross Tabulation of other Expenditures among the Universities

		Other expenditures			Cross Tabulation	
		< 20000	20001 – 30000	> 30001	Chi square	P value
private	1	32	42	14	.315ᵃ	.023
universities	2	36	40	13		
Total		68	82	27		

(Source: Survey data, 2019)

The study findings are in agreement with the findings of Richard (2001) who argued that tuition fees and other expenses are not uniform across most universities. The costs incurred differ across programs offered by various institutions. The researcher further notes that opportunity cost (indirect cost) of education includes the value of students' time which is measured in terms of foregone earnings. The students' time is considered as cost since the learner could be making some gains in terms of income or undertaking some other duties if he or she were not using their time to study. Economically, the student's time value is referred to as an opportunity cost because it is not a direct expense from pocket. This amount differs from one student to the other across different private universities.

Dean of students were interviewed using an interview schedule, 2 (100%) respondents opined that the unit cost of university education is not uniform across universities, tuition fees vary between most private universities. 2 (100%) revealed that fee charged for different programmes offered at the institutions differ. 1(50.0%) argued that the unit cost of university education incurred by households was high and 1(50.0%) revealed that it was not high due to the current economic times. 2 (100.0%) of the respondents revealed that quality of education, wage bill are some of the reasons for the unit cost of university education charged at the facility. 2 (100.0%) of

the respondents mentioned other reasons such as hard economic times. This is in agreement with the findings of Kauffeldt (2010) that quality of education and wage bill are determinants of the unit cost of university education across the various universities in Kenya.

Table 4.12: University Education at the Various Private Universities

		Yes	No
Difference in the unit cost of university education between private universities.	F	2	0
	%	100.0	0.0
Fee charged for different programmes offered at the institution.	F	2	0
	%	100.0	0.0
Whether unit cost of university education incurred by households is high at the facility.	F	1	1
	%	50.0	50.0
Reasons for the unit cost of university education charged at the facility.		Frequency	Percent
Quality of Education		2	100.0
Wage bill		2	100.0
Any other		2	100.0

(Source: Survey data, 2019)

These results to a larger extend agree with the results of Gudo (2014) that the unit cost of university education is not uniform across universities, tuition fees vary between most private universities.

4.6 Challenges that households encounter in financing university education

The third objective was to determine the challenges that households encounter in financing university education for their children and its economic implication on

university students. Of the total respondents, 67 (37.9%) of the respondents cited lack of enough finance for basic needs as the major challenge households are facing in regards to financing university education, 28 (15.8% cited sanitation, 28 (15.8%) revealed challenges such as delayed bursaries funds among others, 27 (15.3%) mentioned delay of helb loan and 27 (15.3%) security. The mean of the items are 2.5650 and a standard deviation of 1.51039.

Table 4.13: Challenges households experience when financing university education

			Mean	Std. Deviation
Lack of enough finance for basic needs	F	67	2.5650	1.51039
	%	37.9		
Delay of HELB loan	F	27		
	%	15.3		
Security	F	27		
	%	15.3		
Sanitation	F	28		
	%	15.8		
Any other (specify)	F	28		
	%	15.8		

(Source: Survey data, 2019)

The research findings here agrees with those findings by Looney (2011); Moretti (2004) who posits that lack of enough finance for basic needs is the major challenge households are facing in financing university education. The results of the interview schedule reveals that enrollment rate of the students had gone down in the institutions. 2 (100%) of the deans of students revealed that the enrollment rate had reduced. For instance, one of the respondents revealed that; "*The institution has witnessed a decline in enrollment for a while now.*" The respondents were asked

whether the institution experienced student turnover rate. 2 (100%) of the deans of students revealed that the student turnover rate is high. This is in agreement with the findings of Simatwa and Mwebi (2013) that the rate of dropout in private institutions of higher learning in Kenya has gone higher over the years at attrition rate of 1.70%. This rate is comprises only of those students who dropped out of the program and left without getting a degree. According to the deans of students, high cost of living, delay in bursaries, and helb loan were some of the problems households are facing in funding of education at the university. This is as opined by one of the respondents that; "*High cost of living, delay of helb loan and bursaries are some of the problems facing households in an effort to finance education for their children at the university.*" But the study of Simatwa and Mwebi (2013) further reveals that the reasons for drop out or higher turnover rates are lack of funds, drug abuse, peer pressure and early pregnancies as some of the reasons for student turn over at the institutions as illustrated in Table 4.14:

Table 4.14: Students affairs and Households challenges

		Yes	No
Enrollment rate	F	2	0
	%	100.0	0.0
Student Turn over	F	2	0
	%	100.0	0.0
Reasons for Students Turn over		Frequency	Percent
	Lack of Funds	2	100.0
	Drug Abuse	2	100.0
	Peer Pressure	2	100.0
	Early Pregnancies	2	100.0
	Any other	2	100.0
Challenges households encounter	High cost of	2	100.0

	living		
	Delay in Bursaries	2	100.0
	Helb Loan	2	100.0

(Source: Survey data, 2019)

4.7 Unit cost of University Education for Graduate Production across Programmes

The fourth objective was to compare the unit cost of education at the university for the production of a graduate across programmes and its economic implication on University learners in selected private institutions of higher learning in Uasin Gishu County, Kenya. The research findings revealed that bachelor of commerce in private institution one was more expensive than that of private institution two. Sixty six (66) of the students revealed that they paid Ksh.120, 000 in an academic year, 70 students opined that they paid more than 120, 000 for a bachelors degree in education, 41 of the students paid Ksh.120, 000 for any other degree course besides education and bachelor of commerce. This other degrees included information technology among others. After cross tabulation the chi square value of the item was 237.146 with a p value of .000 as indicated in Table 4.15:

Table 4.15: Unit cost of education at the university for graduate production across programmes in Private University one

			1		Cross Tabulation	
		120000	>120,000	Total	Chi square	P value
Program	BCOM	66	0	66	237.146[a]	.000
Enrolled	Education	0	70	70		
	Any other	41	0	41		
Total		107	70	177		

(Source: Survey data, 2019)

Cross tabulation was also undertaken to determine the unit cost of university education for graduate production across programs in the second private university in Uasin Gishu County. The amount of tuition fees paid for bachelor of commerce was less than Ksh.100, 000 on average for private institution two in an academic year. Seventy eight (78) of the students revealed that they paid Ksh.120, 000 in an academic year while 33 students revealed that they paid more than Ksh100, 000 for other degree courses like information technology, food and beverage among others courses. After cross tabulation the chi square value of the item was 334.349 with a p value of .000 as illustrated in Table 4.16:

Table 4.16: Unit cost of education at the university for graduate production across programmes in Private University Two

		Private Institution Two			Total	Cross Tabulation	
		100000	< 100, 000	>100,000		Chi square	P
program enrolled	BCOM	0	66	0	66	334.349[a]	.000
	Education	78		0	78		
	Any other	0	0	33	33		
Total		78	66	33	177		

Source: Survey data, 2019

It is evident from the results presented in Table 4.15 and 4.16 that unit cost of higher education is expensive in the second private university than in the first one. The names of the institutions were withheld for purposes of confidentiality. Bachelor of commerce was cheap in the second private university as it was less than Ksh.100, 000 while in private university two, it was equivalent to Ksh.120, 000. Education course was cheaper in the second private university, than the first one. In the second private

university it was around Ksh.100, 000 while in the first university it was more than Ksh.120, 000. Other courses such as information technology were cheap also in the latter private university. The chi square value was statistically significantly high in the second private university than that of the programs offered at the first private institution. The research findings agrees with the results found by (Buchmann & Brakewood, 2000; Meyer et al., 2007) that the unit cost of financing university programs offered by private universities is different across private universities. According to the researcher some programs are expensive while others are cheap if compared to other institutions of higher learning.

4.8 Economic Implications of Unit Cost of University Education

The dependent variable was on economic implications of unit cost of university education. The descriptive statistics for economic implications of unit cost of university education were as follows, 122 (68.9%) mentioned employment as an economic implication of unit cost of university education, 35 (19.8%) revealed wages and salaries while 20 (11.3%) mentioned status as the other economic implication. Economic implications had a average of 1.4463 and a standard deviation of .75280. This is in tandem with the findings of Greenstone and Looney (2011) that employment, wages and salaries are economic implication of unit cost of university education as illustrated in Table 4.17:

Table 4.17: Economic Implications of unit cost of University Education

		Frequency	Percent	Valid Percent	Mean	Std. Deviation
Valid	Employment	122	68.9	68.9	1.4463	.75280
	wages and salaries	35	19.8	19.8		
	Any other (specify)	20	11.3	11.3		
	Total	177	100.0	100.0		

(Source: Survey data, 2019)

The outcome of the interview schedule revealed that employment is the major economic implication of unit cost of University education on University students. Other economic implications are salaries and wages. The results are in tandem with the findings of Johnston (2001) that the economic implications of university students are social esteem, better paying jobs, expanded life options, intellectual stimulation and so on. The researcher further notes that for societies, higher education is assumed to be important to technology, productivity and other ingredients of international competitiveness and economic growth.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This section gives information on the synopsis of results, conclusion and recommendations.

5.2 Summary of Findings

The first objective was to establish the unit cost of university education households incur and its economic implication on learners in selected private institutions of higher learning in Kenya. On average the study findings revealed that majority of students spent more than Ksh.100, 000 on tuition fees in an academic year in the private universities. In regards to the amount spent on books and other materials, majority of the students spend more than Ksh.10, 000 on books and other materials while the least spent less than Ksh.5, 000. In relation to amount spent on clothing, majority of the students in the private institutions spend above Ksh.3, 000 on clothing's in an academic year. In regards to amount spent on accommodation, majority of the students of the students spent more than Ksh.50, 000 on accommodation.

Besides, on the amount spent on transport, majority of the students spent more than Ksh. 25, 000 on transport, while the least spent less than Ksh. 20, 000 on transport in a year. In a bid to establish the examination fee incurred by the students, majority of the students paid an examination fee of less than Ksh. 30, 000 in an academic year. In regards to pocket money, majority of the students used less than Ksh. 25, 000 as pocket money. Finally, on other expenditures, a large number of the students

expended between Ksh.20, 001 to Ksh.30, 000. Other expenditures included, donations, trips among others.

The second objective was to compare the unit cost of university education among private universities and its economic implications for university students. After cross tabulation was undertaken to determine the differences in the unit cost of education at the university among private institutions of higher learning, the study findings disclosed that the amount of tuition paid in the first private university was high than that paid by students in the second private university. In regards to amount spent on books and other materials, in the second institution majority of the students spent above Ksh.5, 000 on books while majority of the students spent over Ksh.5, 000 in the second institution. Students in the first private university spent much money on clothing than those of the second private university. In regards to amount spent on transport, students of the second private institution spent much money than those of the first private institution.

In regards to examination fee, the first private university was more expensive that the second private university as the students who paid an examination fee of over Ksh.30, 000 was more than those in the second university. The study realized that student in private university number two spent much in regards to pocket money that those of institution number one. Lastly the study sought to assess student miscellaneous expenses among the two universities. Students of private university number one spent more money on miscellaneous expenses than private institution number two. On average they spent more than Ksh.20, 000 on miscellaneous expenses.

The third objective was to determine the difficulties which households encounter in financing university education, majority of the respondents cited lack of enough

finance for basic needs as the major challenge households are facing in regards to financing university education. Other challenges included sanitation, delayed bursaries funds, delay of helb loan and security.

The fourth objective was to compare the unit cost of University education for graduate production across programmes and its economic implication on University students in selected private institutions of higher learning in Uasin Gishu, Kenya. The research findings revealed that Bachelor of commerce in the first private institution was more expensive than that of the second private institution. Bachelor of education was more expensive the bachelor of commerce in the first private institution while other programs such as information technology retailed at Ksh.120, 000. Cross tabulation was also undertaken to determine the unit cost of education at the university for graduate production across programs in the second private university in Uasin Gishu County. The amount of tuition fees paid for bachelor of commerce was less than Ksh.100, 000 on average for the second private university in an academic year. Tuition fees of courses such as information technology, food and beverage was Ksh.100, 000. Bachelor of commerce was cheap in the second private university as it was less than Ksh100, 000 while in private university two, it was equivalent to Ksh.120, 000. Education course was cheaper in the second private university, than the first one. In the second private university it was around Ksh.100, 000 while in the first university it was more than Ksh.120, 000. Other courses such as information technology were cheap also in the latter private university.

5.3 Conclusions

The first objective focused on determining the unit cost of education at the university which households incur and its economic implication on students in selected private institutions of higher learning in the County of Uasin Gishu, Kenya. Based on the

research findings, the research deduces that a large number of students expended more than Ksh.100, 000 on tuition fees in an academic year in the private universities. In regards to the amount spent on books and other materials, majority of the students spend more than Ksh.10, 000 on books and other materials. Most students in the private university institutions spend more than Ksh.3, 000 on clothing's in an academic year. Majority of the students spend more than Ksh.50, 000 on accommodation. Majority of the students spends more than Ksh.25, 000 on transport and spent less than Ksh.30, 000 on examination fee. On average a household incurs approximately Ksh. 219,000 on a student in a private university in an academic year.

 The second objective sought to compare the unit cost of university education among private universities and its economic implication for university learners in selected private institutions of higher learning in Uasin Gishu County, Kenya. Basing on the research results the study makes a deduction that the amount of tuition paid in the first private university was high than that paid by students in the second private university. In regards to amount spent on books and other materials, in the second institution majority of the students spent above Ksh.5, 000 on books while majority of the students spent over Ksh.5, 000 in the second institution. Students in the first private university spent much money on clothing than those of the second private university. In regards to amount spent on transport, students of the second private institution spent much money than those of the first private institution.

The third objective was meant to determine the challenges that households encounter in financing university education for their children and its economic implication on university students. Based on the study findings, the study concludes that lack of enough finance for basic needs, sanitation, delayed bursaries funds, delay of HELB

loan and security were the major challenges households encounter in financing university education for their children.

The fouth objective sought to compare the unit cost of university education for graduate production across programmes and its economic implication on University students in selected private institutions of higher learning in Uasin Gishu County, Kenya. Basing on the research results, the study makes a deduction that on comparison of the unit cost of university education for graduate production across programs, bachelor of commerce in the first private institution was more expensive than that of the second private institution. Bachelor of education was more expensive in the second private university campus than the first private university campus. In the second private university campus, the amount of tuition fees paid for bachelor of commerce, education course and information technology was cheaper than that of the first private university campus considered in this study.

5.4 Recommendations

This section covers both policy recommendations and advocacy for more research.

5.4.1 Policy Recommendations

This section presents the policy recommendations of the study.

5.4.1.1 Unit Cost of University Education Households incur and Its Economic Implication on Students in Selected Private Universities

The first objective focused on determining the unit cost of education at the university households incur and its economic implication on students in selected private institutions of higher learning in Uasin Gishu County, Kenya. The research recommends that private universities should invest in books and other materials so as to cut on the unit cost of financing university education incurred by households.

Since, donations, trips inflates the cost of financing education at the university, strategies have to be instated to mitigate on the amount contributed by students to fund trips. This will reduce of the unit cost of financing university education. Reduced accommodation expenses can be achieved if Private Universities invest in housing schemes. The housing schemes will result in to the student living in subsidized houses and hence reduced accommodation fees. Reduced housing fees will in turn reduce the unit cost of financing university education.

5.4.1.2 Comparison of the Unit Cost of University Education Households incur and Its Economic Implication on Students in Selected Private Institutions of Higher Learning

The objective number two focused on to compare the unit cost of university education among private universities and its economic implication for students at the university in selected private institutions of higher learning in the County of Uasin Gishu, Kenya. In regards to this objective the research advocates for strategies to be instituted to ensure that tuition fees charged by private institution is does not vary so much across private Universities. Since the amount spent on books and other materials varied so much across the institutions, the study recommends that private universities should equip their libraries with books to cut on costs students or households incur in purchasing of text books. The institutions should buy more buses to cut on costs students spent on transport.

5.4.1.3 Challenges Households Encounter in Financing University Education

The objective number was meant to determine the problems that households encounter in financing university education for their children and its economic implication on university students. On the basis of the results of the research, the

research recommends that the education ministry should come up with mechanisms to avert delay in disbursements of bursaries funds and HELB loan.

5.4.1.4 The unit cost of University Education for Graduate Production across Programmes

The fouth objective sought to compare the unit cost of university education for graduate production across programmes and its economic implication on University students in selected private institutions of higher learning in Uasin Gishu County, Kenya. Based on the research findings, the study recommends that the fees charged for bachelor of commerce, bachelor of education, bachelor of information technology among other graduate programmes should be harmonised across private university institutions as it differed significantly.

5.4.2 Recommendation for Further Research

This study advocates for more research to be carried out about the unit cost of education at the university and its economic implication for university students across all private universities in Kenya. It can be replicated with a larger sample. A recommendation is hereby also made for a replication of this research be on private universities in other counties in Kenya besides Uasin Gishu County. Furthermore, it would be interesting to know whether the observed findings hold for households' in other Counties as well. Major contextual settings to be put into consideration as far as future researches are concerned and should consider insights from this study that are influencing the unit cost of financing university education and the challenges households undergo while financing university education.

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APPENDICES

APPENDIX I: LETTER TO THE RESPONDENTS

Nicholas Munyasi Endesia

University of Eldoret

P.o box 1125 - 30100

ELDORET, KENYA.

The dean of students

Catholic University of East Africa

P.O BOX 908-30100

ELDORET

Dear Sir/Madam

REF: REQUEST TO COLLECT DATA IN YOUR INSTITUTION

I am a postgraduate student in the school of education at University of Eldoret. I am currently carrying out a research on "The unit cost of University Education and its Economic implication for university students" in private universities in Uasin Gishu County. Your campus has been sampled to participate in this study. Kindly allow me to carry out the study in your Institution.

Thank you for your cooperation in the study.

Yours faithfully

Endesia Nicholas Munyasi

APPENDIX II: QUESTIONNAIRE FOR THE STUDENTS

SECTION A: Demographic information

1. What is your gender? Male ( )   Female ( )

2. What is your appropriate age group? 18-23( )   24-29( )   30-35( ) Above 35 ( )

3. What is your previous academic qualification?

   KCSE Certificate ( ), Diploma ( ), University Graduate ( ), Any other

(Specify)………...

...................…………………………………………….…………………………

4. How long have you been a student in this institution? 3-4 years ( ), 4-5 years ( ),

5-6 years (   ), Over 6 years ( )

5. Program enrolled for at the institution?...

…………………………………………………………………………………………..

6. Indicate your employment status. (a). Employed ( ) (b). Not employed (   )

7. What is the status of your parents? Both alive ( ), one alive ( ), both dead ( ),

Separated ( ).

8. Indicate the occupation of your parents.

(a)Father…………………………………………………………………………

……………………………………………………………

(b)

Mother…………………………………………………………………………………

9. What is your marital status? (a) Married ( ),   (b) Not Married ( ).

10. Indicate your family monthly income. (a) 0-500 ( ), (b) 5001-10,000 ( ),

(c) 10,001-15,000 ( ), (d) 15,001-20,000 ( ) (e) 20,001 and above ( ).

11. Indicate the number of your siblings in the following institutions.

a) Primary school…………………………..……………………..

b) Secondary school…………………………………………………

c) Middle college…………………………………………………………

d) University…………………………………………………………

12. Who finances your education? (a) Parents ( ) (b) Father ( ) (c) Mother ( )

(d) Guardian ( ) (e) Any other

(Specify)…………………………………………………………

SECTION B

13. Indicate the amount money paid for you in the last 12 month by your family.

Id code	1	2	3	4	5	6	7	8	9	10	11	12
Tuition												
Books and other												

materials

Clothing

Accommodation

Transport

Examination fee

Pocket money

Other

expenditures

14 (a) Did anyone outside your household contribute to your university education?

Yes ( ) No ( )

   (b) Did anyone receive scholarship to help you pay your fees? Yes ( )   No ( )

   (c) Given that there is insufficient money, would you continue with your studies?

Yes ( ) No ( )

15(i) If the cost of university education is high, would you have your siblings to

university? Yes ( ) No ( )

   (ii) If yes to the above, give

reasons……………………………………………………

………………………………………………………………………………………

………………………………………………………………………………………

   (iii) If no to the above, give reasons…………………………………………………….

…………………………………………………………………………………………

…………………………………………………………………………………………

16. Indicate your expectation on the following.

(i) Employment………………………………………………………………………….

(ii) Self employment………………………………………………………………….

(iii) Monthly income. 10,000-20,000 ( ), 21,000-30,000 ( ), 31,000-40,000( ), Above 40,000 ( )

(iv) Place of residence……………………………………………………………..

(v) Type of house: Rental ( ), Personal ( ), Permanent ( ), Semi-permanent ( ).

(vi) Family size: 3 ( ), 4 ( ) 5 ( ) 6 and above ( )

17. List some of the challenges households experience when financing university education?...
....
....

…………………END………………….

APPENDIX III: INTERVIEW SCHEDULE FOR DEAN OF STUDENTS

1. Has the enrollment rate of students increased in the institution?

2. Does the institution experience student turn over?

3. What are the major reasons for student turn over at the institution?

4. What are some of the challenges households encounter in financing university education?

5. Is there any significant difference in the unit cost of university education between private Universities?

6. Does the fee charged for different programmes offered at the institution differ?

7. Based on your own analysis, is the unit cost of university education incurred by households high at the facility?

8. Any reasons to back up the unit cost of university education charged at the facility?

9. What are the economic implications of unit cost of University education on University students?

APPENDIX 1V: RESEARCH AUTHORIZATION-UOE

University of
Eldoret
flame of knowledge and innovation
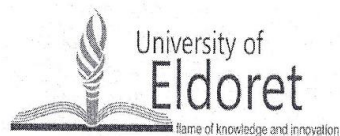
P.O. Box 1125-30100,

ELDORET, Kenya

Tel: 053-2063111 Ext. 242

Our Ref: UoE/EMP/POG/33
1st April, 2019

The Executive Secretary,
National Council for Science and Technology & Innovation
P.O. BOX 30623-00100,
NAIROBI.

Dear Sir/Madam

RE: <u>RESEARCH PERMIT FOR: ENDESIA NICHOLAS MUNYASI REG.NO</u>
<u>SEDU/EMP/M/003/16</u>

This is to confirm that the above named Post Graduate Student has completed Course
work and has successfully defended his research proposal.

He is currently preparing for a field research work on his Proposal entitled: *"Unit cost*
of university education and its economic implication for university students: a case
of selected private universities in Uasin Gishu county, Kenya". The proposal has been
approved by this Institution.

Any assistance accorded to him to facilitate successful conduct of the research and the
publication will be highly appreciated.

Yours faithfully,

[Stamp: H.O.D Dept. Of Educational Management & Foundations of Education UNIVERSITY OF ELDORET]
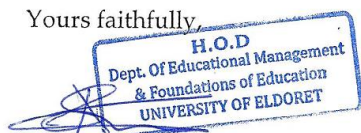
Dr. Alice Limo
<u>HOD, EDUCATIONAL MANAGEMENT AND FOUNDATIONS OF</u>
<u>EDUCATION</u>
Copy to: Permanent Secretary,
Ministry of Higher Education, Science & Technology,
P.O. Box 9583-00200 **NAIROBI.**

APPENDIX V: RESEARCH AUTHORIZATION - NACOSTI

**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

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Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/19/77380/29565**   Date: **23rd May 2019**

Nicholas Munyasi Endesia
University of Eldoret
P.O. Box 1125- 30100
ELDORET.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *"Unit cost of University education and its economic implication for University students: A case of selected Private Universities in Uasin Gishu County, Kenya."* I am pleased to inform you that you have been authorized to undertake research in **Uasin Gishu County** for the period ending **23rd May, 2020.**

You are advised to report to **the County Commissioner, and the County Director of Education, Uasin Gishu County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Uasin Gishu County.

The County Director of Education
Uasin Gishu County.

National Commission for Science, Technology and Innovation is ISO9001: 2008 Certified

APPENDIX VI: SIMILARITY REPORT

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