

**AN EVALUATION OF THE CONTRIBUTION OF INCOME GENERATING UNITS IN
FINANCING PUBLIC UNIVERSITIES: A CASE OF EGERTON UNIVERSITY AND
FORMER CONSTITUENT COLLEGES**

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**A research project submitted to the Graduate School in partial fulfillment of the
requirement for the Award of degree in Masters of Business Administration
of Egerton University**

EGERTON UNIVERSITY

MAY, 2015

DECLARATION

I declare that this research project is my original work and has not been presented to any institution of learning for the award of a degree, diploma or any other award.

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REG. CM11/0422/08

This research project is submitted with my approval as the student's supervisor

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DEDICATION

This research project is dedicated to my wife Grace and son Brandon for their prayers, encouragement, and support for the long periods of my absence they endured while I was conducting research and preparing this research project.

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I would like to extend my sincere gratitude and appreciation to all those who through their assistance, constructive criticism, advice, guidance and moral support made this study a success. First, I thank the almighty God for His guidance and wisdom throughout the process. My gratitude also goes to my supervisor Dr. S. Onyuma for his patient, technical as well as professional advice. I wish to express my heartfelt thanks to Egerton University and staff who participated in the study and for providing the necessary data and on the right time. Lastly, I would like to thank my family members for their patience, understanding and being at my side during the difficult times of this project work. Thank you so much and may the Lord God bless you in a mighty way.

ABSTRACT

Income generating Units have been in operation in the public Universities since their inception in 1990s. Their establishment was meant to cushion the Universities from the effects of the reduction of Government capitation to finance their recurrent and capital expenditure. The Government of Kenya was the sole financier of higher education until 1991 when it became unable to fully finance this education. To find a way out of this fiscal distress, Public Universities were called upon to implement new ways of generating extra income to supplement the ever decreasing capitation from the Government. As a wakeup call, Public Universities initiated various income generating activities which include Module II Programme, Research & Consultancy services, Commercial ventures like hotels, hospitals, fuel stations and general production units, among others. However, most Public Universities are still suffering from financial distress despite the creation of these IGUs. The study sought to evaluate the contribution of the IGUs in financing Public Universities. The study was conducted in Egerton University and its former constituent colleges by December, 2012 and the results were inferred to represent all Public Universities as they are managed by same legal and financing structures. The study population consisted of 22 deans, 2 directors of institute 14 IGU managers and 4 Finance Officers in Egerton University and its Constituent Colleges. A census was conducted on all the 42 members of staff as the group was small and manageable hence there was no need of further sampling. Data was collected using self administered questionnaires and documentary records. Data analysis was done using descriptive statistical analysis where frequency, means and percentages were used. Financial ratio analysis were employed to analyze the financial performance of the IGUs over a period of ten years from 2003-2012. Data presentation was in form of tables and pie-charts. A correlation statistical analysis was performed to establish the relationship of IGUs and University expenditure. The findings indicated that the IGUs are contributing very little to financing public Universities expenditure. To improve the financial performance of the IGUs in Public Universities, there is need to have a radical change in planning and execution of IGUs and also establishment of investment companies to manage the IGUs. Public Universities should also set clear guidelines on utilization of the internally generated funds. For further research it was suggested that a similar study can be conducted in other Public Universities and also a study on factors affecting financial performance of IGUs in Public Universities.

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LIST OF ABBREVIATIONS

ARC – Agricultural Resource Center
CBA – Collective Bargaining Agreement
CHE – Commission for Higher Education
COPs – Cut-off Points
GOK – Government of Kenya
IGAs – Income Generating Activities
IGFs – Internally Generated Funds
IGUs – Income Generating Units
ISO – International Organization for Standardization
JAB - Joint Admissions Board
JKUAT - Jomo Kenyatta University of Agriculture and Technology
KACE – Kenya Advanced Certificate of Education
KCPE - Kenya Certificate of Primary Education
KCSE- Kenya Certificate of Secondary Education
KNBS - Kenya National Bureau of Statistics
KU - Kenyatta University
MBA - Master of Business Administration
MOE – Ministry of Education
RDT - Resource Dependence Theory
R&D – Research and Development
ROA – Return on Assets
ROI – Return on Investment
SSPs – Self Sponsored Programmes
SWOT – Strength, Weaknesses, Opportunities and Threats
UoN - University of Nairobi
UNES - University of Nairobi Enterprise Services

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Universities all over the world are regarded as engines of economic and suitable national development. They are veritable tools for the realization of national development; the development of cultured citizens and promotion of basic research. University education is therefore the most powerful and critical success factor for individuals and the society (Aina, 2007). For Universities to effectively perform their roles there must be adequate funding. The Kenyan government's priority to Universities in terms of funding has declined and this has limited the ability of the Public Universities to effectively and efficiently perform their duties, particularly the traditional roles of teaching and research.

The problem of underfunding of Kenyan Public Universities is a consequence of the expansion of the higher education in response to the growing demand for the University education and the intensifying needs of modern economy driven by knowledge, without an increase in the corresponding available resources (Kiamba, 2005). This have had effect on Universities' core business of teaching and research where the quality has fallen considerably because of lack of adequate teaching and research materials, among others. Furthermore, effects of inadequate funding are evident in the fact that the physical facilities in the Universities are in a state of despair and several capital projects have been abandoned (Kiamba, 2005).

At the time of Kenya's independence, shortage of skilled labour was a major constraint to the achievement of the government's development goals. To address this challenge, the Kenyan government has consistently devoted a large share of its budget to expansion of education. For instance, the education sector took up to 29 per cent of the total government budget in 1998 and remained high of 27 per cent in the fiscal year 2004/2005 (Republic of Kenya, 2006). In 2011/2012, the government allocated Ksh. 149.4 billion to education sector which was 13% of the total National budget (Republic of Kenya, 2011). During the 2012/2013 fiscal year, the government raised the allocation to 233.1 billion shillings translating to 16% of the total National budget (Republic of Kenya, 2012). Whereas the cost of education is borne both by the public and private sectors of the economy, the share of public expenditure on education is becoming a major

issue, now than ever before; given that it is weighing very heavily on the exchequer. In an attempt to address this problem, the government, through Sessional Paper No.1 on Economic Management for Renewed Growth, reduced the budget on Education from 38 per cent to 30 per cent (Republic of Kenya, 1986). The objective was reiterated in the Sessional Paper No. 6 of 1988 on Education and Man Power Training for the Next Decade and Beyond, where the government asserted among other things that in order to halt the increasing claim of the educational sector on national resources, it would introduce a cost sharing system through which both public and private sector expenditures of education would be rationalized (Republic of Kenya, 1988).

The government in the cost-sharing policy shifted the responsibility of acquiring resources to the local communities and schools. In addition, the government emphasized that the resources needed to be acquired and put to the best use in judicious management process. As regards this need, the government, in part, expected that various resources available to education institutions including land, finances, staff, time, facilities and equipment are managed properly and utilized in the most cost-effective manner to bring about efficient provision of quality and relevance in education (Republic of Kenya, 1988).

Over the years, Public Universities in Kenya had to innovate in order to cope with increased competition and diminishing capitation, particularly, from the treasury. Apart from this, the perception of Universities as merely institutions of higher learning is gradually giving way to the view that, Universities are important engines of economic growth and development (Kiamba, 2005). Since 1990, Public Universities have continued to receive less financial allocations from the government than their estimated expenditure. This has resulted to the accumulation of debts, delayed payments to suppliers and delayed payments to SSP service providers, among others. According to a report of Ministerial Public Expenditure Review in 2005, there was a strong indication that the government was no longer able to fully finance Public Universities. Session Paper No. 1 of 2005 on Policy Framework for Education, Training and Research, clearly stated that University education is particularly expensive to Government and is not sustainable within current resources (Republic of Kenya, 2005).

The need for Public Universities to diversify their activities to include income generation formed the thrust of the speech by the Chancellor and the then President of the Republic of Kenya during

the University of Nairobi 1994 Graduation Ceremony. The evolving Government policy in this regard was further emphasized by the then Minister of Education by asserting that, this was a turning point in the development of Public Universities, where they were being called upon to adopt business-like financial management styles. This meant that, Public Universities had to plan well ahead about resources expected to be forthcoming from sources other than the Exchequer.

The problem of under-funding in Public Universities is not surprising considering the fact that, in the recent time, government revenues have not grown in proportion with its expenditure. The government which statutorily bears the cost of higher education in the country now faces tight budgets constraints due to the collapse of various industries and harsh climatic conditions affecting Agriculture, which is the major economic activity in the country. Government priority to education has continued to be very low, while funding of Universities by the government is declining very fast (Kiamba, 2005). As a wakeup call to the problem of under-funding on higher education, Public Universities resorted to various income generating projects to supplement their income. The purpose of these Income Generating Units (IGUs) was to supplement the ever declining government capitation and deliver the Public Universities from the financial hardship. Academically, Public Universities have been affected by the problem of underfunding, which includes reduction in research grants, curtailment in purchase of library books, chemicals and basic laboratory equipment, reduction in attendance of academic conferences and limited number of academic field trips, among others.

Despite these efforts, Ngolovai (2006) observe that regardless of the various innovative methods introduced to generate additional income, Universities economic situation is still precarious, that the income generation measures that have been introduced only offsets a fraction of the huge financial burden facing the Universities. This raises key questions: how can Universities fill these financial gaps? Do these schools have the capacity or the ability to significantly generate additional income for Universities?

1.2 Statement of the Problem

Income Generating Units in Public Universities were created in order to alleviate financial difficulties in these institutions. However, it is evident that Public Universities, continue to suffer from various financial problems including but not limited to debt accumulation and inability to promptly pay suppliers of goods and services; inability to make timely purchases of project inputs; delay in payment of salaries and implementation of Collective Bargaining Agreements (CBAs); limited number of academic field trips and academic conferences; curtailment in purchase of books, reduction in purchase of chemicals, and basic laboratory equipment; freezing of new appointments and suspension of extension of staff contracts upon retirement; and reduction of research grants, among others.

According to Ngolovai (2006), the income generation measures that have been introduced in Public Universities over the years, only offsets a fraction of the huge financial burden facing the Universities. Riechi, 2012 indicated that the significance of income generating units in the financing of public universities in Kenya has not been well documented. The researcher indicated that the potential of these self-financing initiatives in overall financing of Public Universities remains a matter of speculation. This raises key questions whether these income generation measures do significantly influence financing of Public Universities budgets. Given that Public Universities continue to suffer from financial problems despite the initiation of various IGUs, and since financial gaps are still evident in Public Universities' financial operations, a thorough investigation on the contributions by IGUs in financing Public Universities is necessary.

1.3 Purpose of the Study

The purpose of this research was to evaluate the contribution of IGUs in financing Public Universities.

1.4 Objectives of the Study

- i. To assess the financial performance of Income Generating Units in Public Universities.
- ii. To assess the utilization of income from IGUs activities in Public Universities.
- iii. To assess the contribution of IGUs in financing of Universities through University budget.

1.4 Research questions.

- i. What is the financial performance of IGUs in Public University?
- ii. How are the funds generated from IGUs utilized in Public University operations?
- iii. What is the contribution of IGUs to the Public University financing?

1.6 Significance of the Study.

The study is significant in that the findings are expected to add to the existing stock of knowledge by contributing to the existing literature in higher education financing. The results of the study are also expected to help managers in Public Universities to design strategies for improved financial performance. It is also hoped that planners in Public Universities, Ministry of Education and other stakeholders interested in education sector will use the findings in designing policies aimed at improving the financing of Public Universities in Kenya.

1.7 Scope of the study

Up to December 2012, Public Universities in existence in Kenya were seven. These include University of Nairobi (UoN), Moi University, Egerton University, Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenyatta University (KU), Maseno University and Masinde Muliro University of Science and Technology (MMUST). In March 2013, fifteen (15) constituent colleges were awarded charters and elevated to fully fledged Public Universities. This raised the number of fully fledged Public Universities from seven to twenty two (22). Out of the fifteen University colleges elevated to fully fledged Public Universities, three were constituent colleges of Egerton University, Laikipia, Chuka and Kisii University Colleges. For the purpose of this study, the scope was limited to a case of Egerton University and its three (3) former constituent colleges. Egerton University is among the oldest Universities in Kenya and has the necessary structures to help address the research questions. It is also one of the pioneers in the creation of IGUs in Public Universities. In addition, all Public Universities are managed by similar financial policies and legal structures, and therefore, a case of Egerton University was appropriate. The study covered a span of 10 years from 2003 to 2012 and was conducted between January and April 2014.

1.8 Definition of Terms

The following are the central terms/concepts of the study:

Financial Hardships – This is a situation where Public Universities are facing financial difficulties as a result of economic hardships and the government’s inability to fully finance the Universities

Financial Performance – This is the level of performance of Public Universities over a specified period of time, expressed in terms of overall surpluses and deficits during that time. It is a subjective measure of how well Public Universities use their assets to generate revenues

Income Generating Activities - This refers to any commercial undertaking that is aimed at earning additional income for a Public University.

Internally Generated Funds - These are the funds derived from operations of income generated activities in Public Universities.

Income Generating Units/projects - These are development projects aimed at alleviating or delivering Public Universities from financial hardship. Public Universities started various projects to be self sufficient and reduce reliance on government funding as a result of diminishing capitation from the Government.

Public University Financing – This is the act of providing resources to Public Universities usually in form of money or other values. Sources of funds include the government, parents and donors, among others.

Self – Sufficiency - This is the lack of dependency on government funding and being able to finance their own project. By starting these projects, Public Universities were supposed to finance their recurrent and capital budgets without much reliance on the government thereby becoming self sufficient.

Sustainable University Development - This is a self-initiated and self-sustained development process based on the needs and resources of a Public University while minimizing the reliance on external resources.

1.9 Limitations of the Study

The study may have some limitations

- i. Data gap – the study is based on a time series data for ten years’ internally generated funds and expenditure of Egerton University. Some relevant and detailed data were not readily available. There were also variations in reporting system thus creating inconsistency of data.
- ii. Time limit – The duration of the study was only four months. This was short given the magnitude of data required and this affected the comprehensiveness of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Education, especially at the University level, plays an important role in achieving the needs of national development. The provision of quality education and the production of a well-balanced individual are paramount to meet the aims of education in nation development. It can be inferred from the foregoing that University education is important in the future of the nation. The primary and traditional role of Universities is the transmission of knowledge and the training of human minds. This major function is closely linked with the second; engaging in basic research activities which could lead to the advancement of knowledge i.e. making scientific discoveries (Abagi, 1995). From the early history of University education in Kenya, the goals of manpower development, the development of cultured citizens and the promotion of basic research have been conferred on the University system. African governments are committed to the development of University education on the premise that higher education is a most sensitive area of investment. It is politically and socially sensitive in that, government needs both highly trained people and top quality research to formulate policies, plan programmes, and implement projects that are essential to national development (Abagi, 1995).

University education in Kenya began in 1963 with just 571 students enrolled in Nairobi University College (Weidman, 1995). Since then, the system has undergone considerable expansion, and as of 2009, there were a total of seven Public Universities with 12 newly established University colleges and over 22 private Universities with varying levels of accreditation. It is estimated that the country has 122,874 University students of which approximately 80 percent are in Public Universities (K.N.B.S. 2009). Kenya also has a number of public middle level colleges that offer diplomas in certain fields including engineering, education, and computer science. Notwithstanding the expansion in the past several years, the capacity of higher education sector is still limited and only 3 percent of the University aged cohort are enrolled in University education (Kiamba, 2005).

2.1.1 Financing Higher Education

Funding Universities throughout the world has witnessed dramatic challenges in the last decade of the 20th and the first decade of the 21st centuries. These changes are responses to a worldwide phenomenon of rising costs of University education in excess of the corresponding rates of increase of available revenues. In order to cope with government funding reductions, Universities worldwide now generate additional sources of funds (Johnstone, 2005). Universities funding shortfalls has been the norm for many years as enrollments have increased more quickly than the government's capacity to maintain its proportional financial support. Because government funding is insufficient to maintain institutional performance in teaching and research, Kenyan Universities, just like other Universities elsewhere in the world have sought to supplement their public funding with locally generated incomes.

According to Teyie and Kariuki (2009), finance forms an important part of any business undertaking and largely determines the success as well as size of any business. Finance depends on many factors which include the amount of money required, size of the business and the stage of development among others (Teyie and Kariuki, 2009). While making a choice of financing package, there are various issues to consider before arriving at the decision. These include the business and strategic plan, whether the source of finance will be debt or equity financing, and whether the company have the repayment ability. The business also needs to consider the amount of cash available and any short fall if any. Generally, successful entrepreneurs study every possible source of capital including factoring. They analyze a diverse mixture of financing techniques to start up their ventures. This approach calls for molding the business model to fit the finance available rather than trying to fit the financing to the model. This indeed calls for genuine flexibility on the part of the entrepreneur. However, it is far better to make the progress by adapting to what is available than to persistently wait for something that is not and may never be. Many of the most successful entrepreneurs demonstrate this flexibility early in order to achieve footing in their areas of interest (Teyie and Kariuki, 2009). Public University like any other organization requires funding. The various sources of funding to Public Universities include but not limited to the following:

Government Funding: The Government of Kenya, for a long time has been the sole financier of University education in country. Like any other sector, the Education Sector is provided with ceilings annually and it is not entirely open to additional resources. Generally, the level of government funding to universities has been on decrease (Kiamba, 2005). With the financial constraints, the government of Kenya, like other governments in Africa, undertook adjustments in education financing by introducing cost-sharing to reduce government expenditure at University level.

Students' Tuition and Fees: Cost-sharing in Kenya's public universities dates back to the mid-1970s when the government introduced a student loan scheme. Cost-sharing requires students to pay in full or in part through a direct charge depending on their perceived need for tuition, food and accommodation.(Mwira et.al 2007) More and more developing nations have been shifting costs from the taxpayer to parents and students in the form of tuition and fees. In addition to payment of tuition fees for University programmes, most of the universities have devised other methods of fee collection, for services such as accommodation in the halls of residence, sports, medical registration, departmental registration, library, examination, non-refundable admission deposits, among others. These fees vary in amount paid from one university to another.

Commercial ventures: The fiscal distress in public Universities compelled each university to generate more funds from their internal resources to supplement the declining capitation from the exchequer. It is in response to this that the universities expanded the scope of their internally generated revenue to include commercial ventures in response to government's mandate that each university must generate own funds to finance their activities. The commercial ventures which are of different kinds include: petrol stations, bookshops, publishing houses, schools, hotels and hospitals among others (Johnstone, 2005).

Grants and Loans: Financial assistance in terms of grants and loans are being introduced in order to maintain accessibility in the face of increasing costs borne by students and families in the form of tuition and fees as part of the revenue supplementation reform agenda

Like most African countries, higher education in Kenya was historically free, with public purse covering both tuition and living expenses. The rationale for higher free education was based, among other things, on the country's desire to create highly trained manpower that could replace the departing colonial administrators. In return, graduates were bound to work in the public sector for a minimum of three years (Weidman, 1995). Economic difficulties, and the alarming increase in population, coupled with deteriorating climatic conditions affecting agriculture changed this trend and resulted to the reduction of the recurrent budget allocated to higher education. The Republic of Kenya, for a long time has been the sole financier of University education in country. There is no source tied to any particular expenditure item, and therefore, education has no special source of revenue tied to it alone, and thus continues to compete with other public service units. Budget allocation to education, not only depends on the total amount of revenue available, but on the order of priority ranking for any particular fiscal year.

Total government expenditure on education has increased from Ksh. 81 billion in 2004/05 to Ksh. 106 billion in 2008/09 fiscal year (Republic of Kenya, 2009). In 2011/2012 budget, education sector took up to Ksh. 149.4 billion of the total National budget and this was increased to Ksh. 233.1 billion the following 2012/2013 fiscal year (Republic of Kenya, 2012). While the government investment in primary and secondary education has increased dramatically in the last several years, the higher education portion of total education expenditures continues to diminish. In 1994, for example, the Republic of Kenya decreased the education budget from 37 percent of its total annual recurrent budget to about 30% stating that it was not possible to allocate additional funding to higher education (Kiamba, 2004). This shortfall in public budget for higher education brought about the impetus for institutions to look for alternative income generating sources, in effect, reducing their over-dependence on the government budget.

In almost all African countries, Universities receive financial assistance mainly from the state. The result is that the level of higher education activities in a country has for long depended on the soundness of national economic performance. From the 1980's, most African countries experienced financial constraints due to poor economic performance and rapid population growth, added to the need to provide other basic services like primary education, food, health and shelter. University education, therefore, has faced severe competition from other sectors for limited government funds (Otiende, 1986).

According to Abagi (1995), the cost of University education per student in Africa is needlessly high compared to other levels of education to many African countries, for example, a class of thirty to forty children in primary school could receive a year's schooling for the annual cost of a single University student at University level. The high cost of University education in Africa has been attributed to poor planning on the part of the institutions. The situation is made worse by their failure to exploit economies of scale, their high reliance on expatriate staff, the need to import books and equipment, the provision of student accommodation, and mismanagement of funds. These factors have not only increased wastage in higher education, but have also affected the quality and relevance of University education on the continent. The problem of financing higher education is not peculiar in Kenya. In the United States as far back as the seventies (based on the 1974 report of the national commission on the financing of post secondary education), students and parents were to account for 20% of funding. State and local government were to account for 32%, Federal government, 27%, endowment and private philanthropy, 9%, and auxiliary enterprises and other activities, 12%. (Odebiyi & Aina, 2000). To cope with government funding reductions in Canada, Canadian Universities launched a major private funding campaign that led to a rise in tuition by fifty percent to increase University revenue (Odebiyi & Aina, 2000).

There have been reduction in Kenyan Universities financing due to economic hardships, and these have had severe implications for the effectiveness and efficiency of University education in the country. These include, among others, high student wastage, low examination pass rates and low quality of graduates output (Kiamba, 2005). Budgetary restrictions and continued depreciation of the Kenya shilling meant a drastic cut in facilities. Dwindling of resources led to undersupply of scientific materials; reduction of book supplies, and journal subscriptions; abandoned capital projects; lack of physical and structural facilities – poor electricity supply; and hostile working environment. The poor state of the Universities has led to a lot of staff exodus now generally referred to as 'brain drain' in the University system. It is against this background that many of the Kenyan Universities embarked on income generating activities to combat the negative effects of budgetary restrictions which were financially 'strangling' the University system. These income-generating activities are socially productive services, and research innovations relevant to industrial development.

2.1.2 Financial Performance of Public Universities

The financial performance of companies is a subject that has attracted a lot of attention, comments and interests from both financial experts, researchers, the general public and the management of corporate entities. Yet, selecting out the most successful firms has always proved to be a difficult task to many as a firm may have a high level of profitability, but at the same time be in a very bad situation regarding its liquidity. The Financial performance of a firm can be analyzed in terms of profitability, dividend growth, sales turnover, asset base, capital employed among others. However, there is still debate among several disciplines regarding how the performance of firms should be measured and the factors that affect financial performance of companies (Liargovas & Skandalis, 2008). A single factor cannot reflect every aspect of a company performance and therefore the use of several factors allows a better evaluation of the financial profile of firms.

According Iswatia, & Anshoria (2007) performance is the function of the ability of an organization to gain and manage the resources in several different ways to develop competitive advantage. Financial performance emphasizes on variables related directly to financial report.

Almajali et al (2012) argues that there are various measures of financial performance. For instance return on sales reveals how much a company earns in relation to its sales, return on assets explain a firm's ability to make use of its assets and return on equity reveals what return investors take for their investments. Company's performance can be evaluated in three dimensions. The first dimension is company's productivity, or processing inputs into outputs efficiently. The second is profitability dimension, or the level of which company's earnings are bigger than its costs. The third dimension is market premium, or the level at which company's market value is exceeds its book value

Return on Assets – Omondi & Muturi (2013) measured accounting returns using Return on Assets (ROA). They indicated that return on assets (ROA) is widely used by market analysts as a measure of financial performance, as it measures the efficiency of assets in producing income.

Leverage - Leverage refers to the proportion of debt to equity in the capital structure of a firm. The financing or leverage decision is a significant managerial decision because it influences the shareholder's return and risk and the market value of the firm. The ratio of debt-equity has implications for the shareholders' dividends and risk, this affect the cost of capital and the

market value of the firm (Pandey, 2007). Zeitun and Tian (2007) found that debt level is negatively related with financial performance.

Several researchers have studied firms' debt use and suggested the determinants of financial leverage by reporting that firm's debt-equity decision is generally based on a trade-off between interest tax shields and the costs of financial stress (Upneja & Dalbor, 2001). According to the trade-off theory of capital structure, optimal debt level balances the benefits of debt against the costs of debt hence, use of debt to a certain debt ratio results in higher return on equity, however, the benefit of debt would be lower than the cost after this level of capital structure. In other words, the more a company uses debt, the less income tax the company pays, but the greater its financial risk. Based on the trade-off theory for capital structure, firms can take advantage of debt to make a better return on equity.

Liquidity- The International Financial Reporting Standards (2006) define liquidity as the available cash for the near future, after taking into account the financial obligations corresponding to that period. Liargovas and Skandalis, (2008) argues that firm can use liquid assets to finance its activities and investments when external finance are not available. On the other hand, higher liquidity can allow a firm to deal with unexpected contingencies and to cope with its obligations during periods of low earnings.

Almajali et al (2012) found that firm liquidity had significant effect on Financial Performance of companies. The result suggested that companies should increase the current assets and decrease current liabilities because of the positive relationship between the liquidity and financial performance. In contrast to the above reasoning, moderate amount of liquidity may propel entrepreneurial performance, but that an abundance of liquidity may do more harm than good. Therefore, they concluded that the effect of liquidity on firms' financial performance is ambiguous.

The establishment, development, funding and staffing of public universities in Kenya represents a huge investment. It is estimated that each university costs the government over \$10 million a year, and being non-profit-making public institutions, their returns on investment (ROI) are difficult to determine since it is not possible to quantify in monetary terms the trained personnel produced by the universities (Wanyembi 2002).

In this regard, several factors are used while examining financial performance of public institutions. For example the government of Kenya in the 1990s directed all public universities to prepare financial plans to enable the government examine the financial and physical resources of the public universities. All public universities were required by the Ministry of Education (MOE), through the Commission for Higher Education (CHE) to prepare comprehensive financial plans, indicating net assets, sources of revenue, expenditure and how they intended to service their debts. Each individual institution was to prepare a three-year (1994/1995-1996/1997) financial plan using the format given by CHE (Republic of Kenya 1994).

The survey indicated that the financial state of the public universities was unstable. That the universities have been since inception, depended heavily on government funding for both recurrent and development expenditures. The survey also indicated that, financial position of individual universities for the period ended June 30, 1993 had deteriorated due to a high subsidy on students' catering and accommodation and over-spending on personal emoluments. An analysis of the revenue accounts of the universities indicated excess of expenditure over income (deficits) for all public universities in the country (Republic of Kenya, 1994).

As reported in the CHE Consolidated Financial Plan for Public Universities, there were huge debts, though exact figures were considered confidential. Public universities had deficits between capital income and capital expenditure. The universities had entered into ambitious development projects after the double-intake in 1990/91 creating a huge gap between capital income and expenditure. Due to the poor financial performances in public universities, they were under pressure to look for alternative sources of finance and be vigilant in managing their resources. In order to balance their operational budget, the universities had embarked on cost-reduction and cost-control measures. For example, tuition fees were adjusted upwards. The issue and modalities of staff retrenchment were being worked out to reduce staffing levels and, thereby, reduce current expenditures. There was a strong commitment from the universities management to introduce viable and sustainable income -generating activities.

2.1.3 Financial Distress in Public Universities

Financial distress can be described in many ways. It can mean liquidation, deferment of payment to short term creditors, deferment of payment to interest or principal on bonds or the omission of a preferred dividend. According to Pandey (2005) financial distress occurs when a firm is not able to meet its obligations. Okeda (2009) defines financial distress as a situation in which an institution is having operational, managerial and financial difficulties.

Public Universities just like any other business can face many crises. Corporate failure occurs frequently and goes with its huge losses of investor's resources and jobs of thousands of workers. And though many factors would explain corporate failure, one single important ultimate factor, which is contingent upon the occurrence of many others, is financial distress. According to Bosire (2009) in his paper on management and corporate governance, financial distress can be defined as a situation where cash flow is insufficient to cover current obligations. These obligations may include unpaid debts to suppliers and employees, actual or potential damage from litigation and missed principal or interest payments under borrowing agreements, some of which are being witnessed in our Public Universities. Though in some very specific terms financial distress was originally used to describe financial troubles arising from difficulties in servicing borrowed funds, the author says it has however subsequently taken the broader meaning of difficulties generally experienced in servicing financial obligations as they fall due. Financial distress is not unique to Kenyan Universities but it is a global problem with global recession and competition biting deeper in the past few years, more and more businesses are becoming insolvent. And this can affect even the best and the world largest of the businesses or just the kiosk next door (Bosire, 2009).

A dominant theme of higher education in the 1990s was financial distress. This was the principal (although not the sole) condition underlying the World Bank's declaration in 1994 that higher education was in crisis throughout the world. (Arora et al., 2002) According to Arora et al. (2002), three major factors contribute to this pervasive condition of financial distress in Universities. The first is enrollment pressure especially in those countries combining growing populations of secondary school leavers with low current higher educational participation rates and inadequate higher educational capacity to meet the growing demand (Arora et al., 2002).

A second cause is the tendency of unit costs in higher education to rise faster than unit costs in the overall economy, a tendency accelerated by the very rapidly increasing costs of technology and by the rapid change in the fields of study in greatest need and/ or demand.

The third cause of tertiary education's financial distress is the increasing scarcity of public revenue-a function, in turn, of competition from other public needs like basic education, public infrastructure, health, the maintenance of public order, environmental stabilization and restoration, and addressing the needs of the poor; and also of the inability of many countries to rely on former methods of raising public revenues, such as turnover taxes on state-owned enterprises (Arora et al., 2002).

2.1.4 Entrepreneurism in Public Universities

Over the years, Public Universities in Kenya have continued to receive less financial allocations from the government than the expected expenditure. Public Universities were therefore called upon to explore ways and means of financing University programmes partly with funds generated from sources other than the Exchequer. This led Public Universities to engage in entrepreneurial activities in order to generate more income to finance their capital and revenue expenditure (Kiamba, 2005).

Entrepreneurialism means the concept of adopting entrepreneurship skills in our Public Universities. Public Universities as a result of the financial hardships were forced to engage in income generating activities in order to generate more funds for operation. According to Kartz (2008), entrepreneurship refers to the practice of identifying, mobilizing, utilizing and exploring ideas, concepts, opportunities and resources in order to generate an occupation, an income, attain self-sufficiency or fulfillment as well as achieve set goals. Most commonly, the term entrepreneur applies to someone who creates value by offering a product or service, thus carving out a niche in the market that may not be in existence. Entrepreneurs tend to identify a market opportunity and exploit it by organizing their resources effectively to accomplish an outcome that changes existing interactions within a given sector. Traditionally, it has been held that the entrepreneur is not a good manager and that a manager is not an entrepreneur. Unlike the traditional manager who focused largely on administrative efficiency, it would seem that the effective entrepreneurial manager needs to possess skills in building an entrepreneurial culture in an organization. A question therefore arises; can an institution of higher learning be an

entrepreneur? The managers given responsibilities of managing income generating units need to possess the entrepreneurial skills (Hisrich, 2007).

According to Teyie and Kariuki (2009), challenges facilitate generation of ideas and a human mind that is unbounded and unlimited to exploit as well as see many of these opportunities. Entrepreneurship is in most cases, a challenging undertaking, as a considerable majority of new business goes out of business within a relative short period. Entrepreneurial activities are significantly distinct depending on the nature of organization that is being started and ranges in scale from sole proprietorship to major undertakings. The authors highlighted that the feat of entrepreneurship is often linked with real uncertainty, particularly when it involves bringing something innovative to the world, whose market never exists. The best example in this case would be: before computers, there was no internet and after internet, nobody knew the market for internet related business e.g. modems which are today found in all aspects of our lives could exist. Only after the internet emerged did people get to see opportunities and market in that technology. The question then is; does a market exist? and if it does, for whom? (Teyie & Kariuki, 2009). If Public Universities were to succeed in business, they should conduct a market survey to see if markets exist.

Teyie and Kariuki (2009) highlighted that precisely, entrepreneurs have many of the same character traits as leaders. Entrepreneurs are often contrasted with managers and administrators who are said to be more systematic and less prone to risk-taking such person-centric models of entrepreneurship have shown to be of questionable validity, but least as many real-life entrepreneurs operate in teams rather than as single individuals. Generally while appointing IGU managers, Public Universities should consider individuals with such traits which are general to entrepreneurs most of which include an overwhelming need for achievement, tough and pragmatic people driven by needs of independence and achievement, extreme optimists, opportunists, creative and unsentimental. The managers be courageous to take prudent risks by assessing costs, market/customer needs, be a positive thinker and a good decision maker (Katz, 2008).

IGUs in Public Universities, just like any other business enterprise requires approach of new ventures skillfully. An entrepreneurial way of thinking is described by entrepreneurial urge, predestined to cause the innovative and energetic practice to ascertain and create an opportunity

and take action aimed at realizing it. A creative mind set helps entrepreneurs to initiate new ideas and bring to the market in a manner appropriate to create value for potential customers. Proper creativity therefore comes not from the kind of area in which one is active but whether one can envision something that is original. To this end, entrepreneurial mindset is a philosophy by which individuals engage in creative acts regardless of the type of work they are engaged in. In contrast, a managerial mind-set deals with creating orders and efficiency through controlling, evaluating and administering practices. An entrepreneurial mindset is different from entrepreneurial cognitions in that the former signifies a philosophy of personal identity and values while the later signify a group of decision making tools that entrepreneurs use to evaluate and develop business opportunities (Mbugua, 2010).

To achieve the goals and purpose of an entrepreneurial University there is need for creativity and innovations (Teyie & Kariuki, 2009). This encompasses aspects such as management, leadership, business policy, motivation, communication, promotion, and product development, financing, and customer services. With this in mind how then can we define creativity? Creativity refers to the concept of generating ideas, formulas or patterns as well as discovering the existence of opportunities and resources of conceptualization, logic exhibition, reasoning and intuition associated with perpetual apparatus. Innovation on the other hand is a process that involves idea selection and development through harnessing creative energy in order to convert ideas, patterns and formulas into more efficient products or process by re – inventing, re-designing, simplifying, paradigm shift or revolution process. Creativity is the foundation of innovation but when developing organizational strategies the outstanding differences need to be highlighted. Creativity can be managed through employee empowerment, tasks decentralization, minimizing bureaucracy, budgeting for risk, and setting a proper reward scheme (Teyie and Kariuki, 2009).

2.1.5 Categories of Income Generating Activities in Public Universities

In an effort to make up the financial shortfalls and enhance their missions, Public Universities mounted innovative income-generating activities (IGAs). These are organized around self-sponsored academic programmes, business and productive ventures (non-academic commercial units), consultancy services, and hiring out University facilities to external users. Non-academic IGAs include running guesthouses, farms, bakeries, cyber-café, bookshops, restaurants and mortuaries. New study programmes and courses have also been initiated in response to public demand, on the basis of charging full-cost fees plus overheads. The introduction of these courses has not only increased access to University education programmes during evenings and weekends but has also contributed to generating valuable income for these institutions (Mwiria et. al. 2007)

In 1994, the University of Nairobi appointed a committee to look into income-generating activities in the University and make appropriate recommendations. In its report, the committee came to the conclusion that, through the use of experts and business-like management styles, the institution could generate substantial revenue in a sustainable manner. Consequently, it recommended the formation of the University of Nairobi Enterprise Services (UNES) limited, whose responsibility was to promote, manage and co-ordinate income-generating activities and consultancies (Kiamba, 2003).

Maseno University initiated similar measures in 1995 when its Academic Board and Council established the Investment and Economic Enterprises Unit to co-ordinate and manage all non-teaching income-generating units, including the University farm, bookshop, catering services, guesthouse, tree nursery and staff housing. Kenyatta University has likewise launched a number of income-generating activities: the bookshop in 1992, the Child Care Unit in 1993, the Bureau of Training and Consultancy in 1993 and a Postgraduate Diploma in Education programme in 1995, among others (Mwiria et. al., 2007).

Moi University responded by forming the Moi University Holdings Company Limited to run non-teaching income-generating activities such as mortuary services, transport, a bookshop, farms and staff housing. JKUAT adopted a different approach from the other Public Universities. Under the auspices of the Continuing Education Programme, it has been accrediting middle-level

institutions where JKUAT programmes are offered. Egerton University has also ventured more recently into income-generating activities (Mwiria, et. al., 2007).

These various activities, especially the self-sponsored programmes, have been successful in generating significant income for the Public Universities. During the 1998/9 and part of 1999/2000 fiscal years, for example, the University of Nairobi earned a total of Kshs.224 million and Kshs.240 million respectively from parallel degree programmes. Currently, the University raises about 20 per cent of its budget from the parallel-degree programmes and pays close to 60 per cent of its utilities bill from its own internal resources. At Moi University the revenue from student fees in the Privately Sponsored Students Programmes (PSSP) was approximately Kshs.103 million in the 2000/01 financial year. Parallel programmes and self-sponsored students have succeeded in bringing the Universities some additional income. At Maseno University the permanent personnel emoluments in the income-generating units were Kshs.5.9 million compared with a total net profit of Kshs.3.6 million in the 1998/9 fiscal year. In the 1997/8 financial year total emoluments amounted to Kshs.5.2 million whereas only Kshs.3.2 million had been realized as the total net profit from all income generating units (Mbuthia and Gravenir, 2000; Mwiria, et. al., 2007).

At Kenyatta University, the total income from IGAs was Kshs.22 million in 1996/7, while total expenditure amounted to Kshs.33 million). In 1997/8, the annual revenue from IGAs was Kshs.30 million while the total expenditure amounted to Kshs.51 million. This bleak picture was reversed during the 1998/9 year when the income-generating units realized Kshs.112 million compared with expenses of Kshs.79 million. In general, therefore, the cost of personnel emoluments has reduced the profit potential of the IGAs (Mwiria, et. al., 2007).

Income generating activities, currently undertaken by Universities in Africa, can be generally classified in two groups, namely; teaching (parallel degree) programs and non-teaching income generating activities. The academic oriented income generation means that income generation may be purely academic through the provision of education and teaching services. This academic-oriented income generation can be done through the development of academic-based business unit, which provides science and technology-based products. The principle of academic-oriented is a principle that income generating based on the realization of the main tasks and functions of Universities that are teaching, research, and community service (Ogada, 2000).

2.1.5.1 Module 11 Programmes

Over the last two decades, Kenya has witnessed an unprecedented growth of Module II programs in the Public Universities. The nascent nature of these programs is borne out by the fact that the earliest started in 1998 and the rest have grown over subsequent years. Different terminologies have been used to describe these programs viz; parallel programs, self sponsored programs, direct entry programs, full fee paying academic programs and Module II program (Cheboi, 2004).

These are academic programmes in which the registered students are privately (self) sponsored and therefore paying full tuition as distinct from the ‘regular’ or ‘Module 1’ programmes in which the students receive about 80% sponsorship from the government under a cost sharing arrangement. Module II students gain entry to Universities on the basis of different criteria that vary from University to University. At the very initial stages of the module II programmes, candidates had to be Form Four school leavers who met the minimum entry requirement of C+ but could not meet the entry cut off point for the government sponsorship. In an attempt to increase the number of self-sponsored students, various institutions made admission conditions more flexible and accepted students from different academic backgrounds including holders of A level certificates, Kenya Advanced Certificate of Education (KACE) from the old 7-4-2-3 system, P1 holders, diploma holders, and certificate holders from other government recognized institutions (Otieno, 2004).

It is clear that the University competitive advantage in income generation lays in the knowledge –driven areas, hence the introduction of academic programs for self sponsored students. The sectors of the economy that are knowledge –driven were seen not only in the areas of core competence of the University, but that they were also new sectors of the economy recording growth and breaking new frontiers. In so doing, the Universities would also be doing more than just good business. It would be providing the much needed impetus for a national point of view that new educational opportunities created by the new environment, would save the nation money that would otherwise have been spent abroad and therefore saving the country’s foreign exchange. Using the available slack capacity in Universities, (evenings, weekends and long vacation), the Universities were able to open strategic windows of educational opportunities to the many Kenyans who meet the University admission requirements, but who do not secure

admission due to the limited capacity for the regular programmes. This has been made possible because, most Universities do not offer accommodation to registered students in these programmes. These opportunities are also available to those whose full-time jobs and other personal commitments which would otherwise not allow them to pursue further studies on a full-time basis.

The introduction of tuition fees in Public Universities in Kenya in 1991 did not significantly improve the resource base due to limited number of students. Dual track tuition policy introduced in 1998 enabled the Universities to admit extra students who pay full fees. These includes the form four leavers who did not merit to join the University through joint admission board, those employed and wish to advance their professional careers but do not have time off their jobs, and foreign students. Cheboi (2004), States that, although this is a good source of additional revenue, the location of the University determines the viability of these programmes. For instance due to a rich catchment area, income generated by module II programs at the University of Nairobi rose from 4% of total income in 1998-99 to one third of 2002/2003 fiscal year (Ngolovai, 2006). Universities have taken this initiative further by establishing satellite campuses to satisfy demands for higher education. (Cheboi, 2004).

The Privately Sponsored Students Programme (PSSP) for example was launched in Moi University in October 1998 (Wekulo & Musera, 2012). Recognizing education as a basic human right and aware of its mission to impart knowledge, skills and to generate knowledge, Senate saw the need to open opportunities for those students who qualified but could not get admitted to the Universities. The income from the programme contributes to improvement of the academic environment of the University through research funds, construction of buildings, purchase of equipment, library books, vehicles and other areas of the University (Wekulo & Musera, 2012)..

These educational programmes have enabled Public Universities to generate revenue (to supplement exchequers support to finance its functions) (Kiamba, 2005). However, there were some resistance to the introduction of parallel programmes especially by students; Universities had to be closed for months following demonstrations against parallel programmes. The justification for the programmes was however so solid that Universities' management decided there was no going back. It was also realized that, other than the setting up of the committee and consideration of the committees' reports, Universities management had perhaps not carried out

adequate consultations with involved students and staff in the novel idea; hence ownership of the new policy by the total University community was initially problematic. The aforementioned Income Generating Committees were University management committees rather than committees set by senates. There was therefore an impression that the new policy was “top down” rather than “bottom up”, which did not obviously lend itself to easy acceptability by the stakeholders (Kiamba, 2002).

2.1.5.2 Open and Distance Learning

For years, distance education has been a minor activity carried on and promoted by a small group of educators in Universities aimed at broadening access of educational programming to universal or underserved populations of students. Because of its broadness, it has been re-casted as “on-line learning” or “e-learning”. Moreover, with the growing ICT, institutions can generate money through “pay-to-surf” fee. Cheboi (2004), noted that, even though the initial costs of establishing the infrastructure for distance and technology based teaching are high, it is worth investing in because it reduces final costs, increases productivity and employment (Cheboi, 2004).

According to Mwiria (2006), out of the six Public Universities by December 2006, the University of Nairobi had the oldest distance-delivery mechanism. Based in the Faculty of Education and External studies, the programme has developed over the years pioneering audio and print materials, some of which have been used extensively by other Universities in the region, including the Open University in Tanzania. Kenyatta University’s School of Education and Human Resources Institute for Continuing Development offers University education to primary and secondary school teachers who are keen to upgrade their qualifications using the distance learning mode. JKUAT runs distance-education programmes through the accredited centres it has established, thus reaching a wider population. At Egerton University, a Military Science Programme conducted by distance learning was suspended by the Department of Defence although the course has not been reinstated to date.

2.1.5.3 Commercial Ventures

In response to the government mandate that each University must generate a certain percentage of its total revenue, each University embraced vigorously, commercial ventures, and linkages with the productive sector. In this study, commercial venture will be used to mean a unit or a department within the University, which engages in direct production of goods or services, which are sold direct to the consumers. Such units are established primarily for profit possibilities. All Universities are involved with running commercial ventures of different kinds, ranging from hotel services, primary and secondary schools, publishing and printing presses, and petrol stations among others. The establishment of these commercial ventures is a recent phenomenon, and a response to the economic demands of the 1980s. Many of the units established pre-1980s were mainly research units with a greater focus on research and development (R&D) rather than the generation of monetary gains for the University (Kiamba,2005).

2.1.5.4 Research and Consultancy Services

This is concerned with services such as consultancy, technology transfer, commercialization of research findings and inventions, provision of patent information services and business incubation. These services can be provided by individual staff, departments, research groups or a University-wide team. Currently this is the least developed area of income generation in African Universities and the most difficult to implement using existing structures (Ogada, 2000). On this category, the investment is greater on the part of the participants than it is on the Universities due to high intellectual input from participants. An example is providing two seasons of financial, managerial, and other advising to an enterprise on the establishment of a commodity for export (Kiamba, 2005).

Research development includes a diverse set of dynamic activities that vary by institution. These activities include initiating and nurturing partnerships, networks, and alliances between and among faculties at their institutions and funding agencies; and designing and implementing strategic services for their faculty and researcher constituents. (Mugenda and Mugenda, 2003).

Universities through contracts have broadened their income base by creating an enabling environment for mutual benefit to stakeholders. The opportunity to generate revenue from sales of research findings in areas of applied research and consultancy services, and demand driven courses are offered to the needs of the client. Research findings show that, industries in Kenya and Africa at large are small with limited resource base. However, basic links with industries in areas such as small scale services, training and employment are important sources of mutual benefits for Universities (Wekulo and Musera 2012).

Provision of consultancy services by University staff members for the government or for private enterprise ought to generate significant funding for the Universities; however, this has not been the case in Kenya. At Kenyatta University, for example, the Bureau for Training and Consultancy Services, which was expected to harness resource for the University, has failed to make a breakthrough into the consulting world. It has opted instead to concentrate on offering training programmes. Consequently, academic staff who offer research and consultancy services at the University do so exclusively for their own benefit and often at a cost to the University through loss of time and free use of University facilities. The situation in the other Public Universities is similar. To reverse this situation, Public Universities need to convince both the consumers of the value of such services and the academic staff who provide them of the potential advantages of having these services centralized within the University (Mwiria et. al. 2007).

2.1.5.5 General Production Units

Production units are income generating activities, set up to use idle time of the facilities and manpower within the teaching departments and faculties, to generate funds. This category includes IGAs which are artisan-based without heavy dependence on specialized human resources of professional nature. Ideally the cost of employment is met as part of the production costs with worker-incentives coming from bonus payments based on the surplus income that these units realize. Typical examples are the agricultural farms at Egerton University, timber and metal workshops in the estate department at the University of Nairobi, welding and fabrication works in the Department of Production Engineering and furniture production in Wood Science and Technology at the department of Moi University among others (Kiamba, 2005; Ogada, 2000).

2.1.6 Utilization of Internally Generated Funds in Public Universities

A policy have evolved and indeed continues to evolve, of the distributions or apportionment of income or benefits from the different income generating units or projects to the various stakeholders or organs of the Universities. Such distribution has not necessarily been uniform due to the varying contributions from the participants and the University (Kiamba, 2003). Public Universities have tried a number of options regarding the allocation of resources generated internally. Some of these have generated new dilemmas for the Universities and, by and large, the whole issue remains unfinished business, including agreement on a sharing formula for the allocation of the IGFs and the consistent utilization of the resources (Mamdani 2007).

The profits realized through income-generating activities have been used to top up staff salaries, recruit part-time teaching staff, maintaining existing facilities, purchase relevant teaching materials, and support programmes for curriculum development. Service providers – mainly academic staff members and support personnel – are compensated for services rendered to the self-sponsored academic programmes and the non-teaching income generating activities in the Public Universities (Mwiria et. al., 2007).

In the University of Nairobi the IGFs are used to compensate academic staff. In addition to staff remuneration, income-generating programmes contribute funds to various sections of the Universities, including library maintenance and capital development funds. Although modest, the recent addition of vital textbooks and journals to the libraries at Nairobi and Moi Universities was made possible through such allocations. At Kenyatta University, one of the visible effects of these income-generating initiatives has been the renovation of the Nyayo Complex Hostel, which had been in a pathetic condition for several years. Other improvements that have been undertaken at KU include the provision of additional office space and the installation of perimeter fencing in the main sections of the University (Mwiria et. al., 2007).

The University of Nairobi has used the additional revenue to pay for medical services, electricity, telephone, water and insurance and for general infrastructure improvement. Moreover, the University was able to acquire six new buses. In 2002 the self-sponsored academic programmes were meeting close to 60 per cent of the University's entire utilities bill. The introduction of privately sponsored student programmes has to some extent enhanced the efficiency of

Universities in utilizing existing human and physical resources. Lecturers do more teaching, and existing facilities such as libraries and lecture theatres are used more intensively. However, there is another sense in which these resources have been overstretched. This is manifested in the escalating complaints by lecturers about the increased workload that, in turn, has negatively affected their performance in other professional areas. At another level, in some departments or stations, the available non-academic staffs are inadequate to serve the increasing number of students. Such problems are clear at key facilities such as libraries, where the inadequacy of staff, coupled with low staff morale, has left these facilities in a state of disorganization (Mwiria et. al., 2007).

In Makerere University for example, one dilemma concerns agreement over the formula for sharing the IGFs between the centre and units. For instance, Mamdani (2007) in referring to the Council meeting of 17 December 1992 highlights the five shifts in the distribution of the various fees at Makerere. He notes that the reasoning behind the establishment of income generating units was to provide an incentive to the units. The centre would retain 30 per cent of the fees paid on day courses, transferring 70 per cent to teaching units, while 10 per cent would be retained for evening programmes, thus awarding 90 per cent of these fees to the teaching units. Mamdani notes that since then, there has been a tug-of-war between the revenue-earning units and the centre, itself under growing pressure from units which have been unable to attract private fee-paying students. The dilemmas are also evident in Kenyan Public Universities as staff and Universities' administrations continue to fight over the distribution of the profits derived from these IGUs (Mwiria et. al., 2007)

There is definitely the need for Public Universities to define clearly the budget items for which the centre as well as the units must cater within the budget framework. Different units apply different criteria in allocating IGFs at the Public Universities. The issue at stake is not simply the legitimacy or fairness of a particular sharing formula, but the underlying assumption that the income-generating units are automatically entitled to their income, regardless of their budgetary requirements (Mamdani, 2007)

2.1.7 Sustainability of Income Generating Units/Projects in Public Universities

Various factors play an important role in determining the sustainability of income generating projects. They include financial resources, teamwork, skills development, project plan, project committee, project infrastructure and administration, proper monitoring and evaluation and appropriate project selection and identification.

2.1.7.1 Financial Resources/Funding

In order to implement some of the project plans effectively and to be sustainable, there is need for funding. Financial need should be reflected in both the planning and implementation of the project (Magano, 2001). The basic measurements of economic impacts of the projects are their contribution to income and the value and costs of income generated.

2.1.7.2 Teamwork

Teamwork can be identified as the main important factor for the success of income generating projects. Teamwork involves communication, relationship, sharing responsibility and commitment. Through teamwork, project members express their ideas, opinions and feeling openly and authentically. It is regarded as the “lifeblood” of every organization. Magano (2001) further elaborates that when people work as a group, lack of respect such as ignoring contributions of others, criticisms, and sarcasm devalues other members, which has a negative effect on team relationship. Teamwork helps the members to overcome any barrier that exist within them.

2.1.7.3 Skills Training

Attention to training and improving people’s skills and managerial abilities can be very effective but requires a long-term perspective. At present, training is a fashionable answer to many development problems (Hurley, 1990). In reality, the major training needs of the project staff should frequently be oriented towards human development and this is a grounding principle of sustainability. Training may focus on a variety of skills such as leadership, communication, small business management, bookkeeping and technical skills that relate to project activities.

2.1.7.4 Project Planning and Management

The starting point of any planning exercise is a review of the current situation in order to guide towards the achievement of goals. A project plan is vital in that it provides a frame work or a starting point of how the project conducts its business and manages its people. A successful programme implementation is based on the appropriate programme planning and good management. Lack of appropriate programme planning has a negative impact on the sustainability of programme implementation. A good project management includes planning, organizing, directing, controlling project resources and having a clear evaluation plan. Projects also require the establishment of boards, managers, and officers who undertake or facilitate project activities and ensure accountability. In many projects there is confusion as to whom the project beneficiaries are due to lack of clarity in the formulation and definition of the project (Gray, 2008).

2.1.8 Phases of a Successful Income Generating Project

It is hypothesized that, in order to implement an effective and sustainable income generating projects; project development must be a planned change process. It must be dynamic and move by means of phases. Income generation units in Public Universities are special projects designed to give extra incomes to these Universities. To manage these special units, the managers given the responsibilities to manage them require relevant skills in project management. According to Chandra (1995), Project management is the discipline of planning, organizing, and managing resources to bring about the successful achievement of specific goals and objectives. The author defined a project as a carefully defined set of activities that use resources (money, people, materials, energy, space, etc) to achieve the project goals and objectives. Mostly, the main objective of operating projects is to earn profits. An individual would prefer to earn some cash now than the uncertainty of future cash flows; preference for consumption and investment opportunities. A rational investor faces some investment problems such as choice of investment and whether to invest now or wait to invest later (Gray, 2008).

2.1.8.1 Project Development Stages

There are various approaches to project development. Regardless of the approach employed careful consideration needs to be given to clarity surrounding project objectives, goals and importantly of all the participants and stakeholder. A traditional phased approach identifies a sequence of steps to be completed in development of a project which include project initiation followed by planning or design stage and then execution. During execution, proper monitoring and controlling must be applied.

The initiation stage determines the nature and scope of the development. If this stage is not performed well, it is unlikely that the project will be successful in meeting the business needs. The key project controls needed here is an understanding of the business environment and making sure that all necessary controls are incorporated into the project. Any difficulties should be reported and a recommendation should be made to fix them. While planning for project initiation, Public Universities should include a cohesive plan that encompasses various areas like analyzing the business needs in measurable goals, a review of current operations and a conceptualized design of the final product. A financial analysis of the costs and benefits including a budget should also be considered (Gray, 2008).

In planning and design phase the action committee formulates objectives according to the goals and draws up a time schedule and also determines resources aimed at satisfying the needs and problems of the organization. Planning means bringing together three elements i.e. needs, resources and objectives – and then relate them to a fourth element which is action. Planning means going through an imagination exercise to try and shape the future, and it is a continuous process not an annual event. In the planning process there are various steps that should be followed which starts by formulation of goals and objectives, determining resources in order to meet the needs of the people and implement action plans, compiling alternative plans and finally programming by use of planning schedules (Gray, 2008).

In Implementation phase the selected plan to address the problems and needs, which impede functioning, is implemented and the plan is adjusted if necessary. Implementation reflects the plan and is therefore an important test and therefore it must come as soon as possible after the plan formulation. The first imperative for implementation is that it should take place according to

plan. It is the operationalization of a plan. If it is not done according to plan, it cannot be called implementation, but rather ad hoc actions that are little better than a shot in the dark. Because a specific plan is implemented, the mode of implementation differs from project to project. Executing consists of the process used to complete the work defined in the project management plan to accomplish the project requirements. Execution process involves coordinating people and resources, as well as integrating and performing activities in accordance with the project management plan.

Executing is the most important stage as this is the point where all the plans are put in action. For the projects to be successful there is need for separate management teams independent from any influence from the University management. In most cases projects do fail due to such influence as managers in Public Universities may not have business skills. Circumstances do change between the formulation of a plan and its implementation. Therefore implementation must come as soon as possible after plan formulation. For this reason, it is suggested that detailed planning be done for only one month in advance. Implementation will then follow immediately after planning. The reason for quick implementation is that delays in implementation break down enthusiasm. To maintain enthusiasm during implementation stage, the set objective should be reachable and flexible. Implementation should also involve every member of the group and the management should be positive about setbacks (Gray, 2008).

Monitoring and controlling consist of these processes performed to observe project execution so that potential problems can be identified in a timely manner and corrective action can be taken, when necessary, to control the execution of the project. The key benefit is that project performance is observed and measured regularly to identify variances from the management plan. Monitoring and Controlling includes monitoring the ongoing project activities against the project management plan and the project performance baseline and influencing the factors that circumvent integrated change control so only approved changes are implemented. To monitor the activities of the IGUs there is need for a strong Audit team independent from University management to oversee the activities of these units. This will help the units to keep in track to achieve what they were meant to achieve on their creation (Okeda, 2009).

2.1.8.2 Project Control System

Project control is that element of a project that keeps it on track on time and within budget. Project control begins early in the project planning and ends late in the project with post – implementation review, having a thorough involvement of each step in the process. Each project should be assessed for the appropriate level of control needed. Too much control is time consuming while too little control is too costly. If control is not implemented correctly, the cost to the business should be clarified in terms of errors, fixes and additional audit fees. Control systems are needed for cost, risk, quality communication, time, change, procurement and human resources. In addition, auditors should consider how important the projects are to the financial statements, how reliant the stakeholders are in controls, and how many controls exists. Auditors should review the development process and procedures for how they are implemented. The process of development and the quality of the final product may also be assessed if needed. A business may want the auditing firm to be involved throughout the process to catch problems earlier on so that they can be fixed more easily. An auditor can serve as controls consultant as part of the development team or as an independent auditor as a part of an audit (Okeda, 2009).

2.1.8.3 Project Management Team

Various scholars have viewed management as a major factor that determines project profitability Gray (2008) recommended that the success of a business depend on the manager's ability to plan and control projects operations. A management team is involved in activities like formulation of strategies, sound project organization, timely availability of funds, judiciously equipped tendency and procurement procedure, and effective monitoring of the overall project. The team should work in harmony to enhance achievement of their goals. In Public Universities, the managers responsible for monitoring the IGUs should be a separate team from the University management and should posses skills in project management. Kirby (2003) asserts that, entrepreneurial managers build confidence encouraging, creativity, innovation and calculated risk-taking, rather than criticizing and punishing.

2.1.9 New Venture Planning

Many ventures are created without the requisite planning and preparation, and without the owner manager having established the feasibility of the venture or appreciated the difficulties involved in its operation. Frequently those who start new businesses possess the technical, but not the managerial skills and understanding to make them worth. They are convinced by their idea and believe that customers will want to buy their products be they goods or services. Once the businesses are up and running, their owner managers have neither the knowledge nor the systems to control and manage them, with the result that the business go out of control and the owner manager learn the hard way, by trial and error (Timmons and Spinelli, 2006).

In public University, starting up IGU's should start after conducting proper feasibility study. In most cases, this is not the case as those responsible may lack planning skills. Often, in an era of intense competition, errors can be fatal. Hence if new ventures are to succeed, it is important to establish their feasibility from the outset and to put in place the controls that will help navigate them to success. This is done through the business plan. A business plan test the viability of an idea and sets out what the business expects to achieve, together with the resources and actions required. Once developed, it acts as a roadmap showing what is expected to be done and when. Thus not only does it check the commercial and technical viability of an idea, but also sets goals and objectives, and allows monitoring of actual progress. If the performance of the business varies from that identified in the plan, the reasons for this and their implications to the business needs to be considered and any remedial action taken. According to Timmons and Spinelli, (2006) business planning involves preparing a business plan which serves as an entrepreneur's roadmap on the journey towards building a successful business. They have defined a business plan as a written summary of an entrepreneurs' proposed business venture, its operational and financial details its marketing opportunities and strategy and its manager's skills and abilities.

Planning is critical in IGU's management because it gives the path to follow and serves as a communication tool for investors, suppliers, employers and other interested in understanding business operations and goals. A business plan is also the most important guide to starting, building and managing a successful business. However this is often overlooked and the obstacles hindering planning include lack of knowledge, fear of unknown and inexactness. These obstacles are very real. However, they must be overcome if you are to face the future, heading into it

without any direction is much worse. Dreams and ambitions are great and important, but what really count in the business world are the results. Therefore, it is important to establish realistic goals with a sound methodology for achieving them. Business plans, therefore, need to be well researched and prepared, used sensibly and seen as being flexible and capable of adapting to, and showing changing circumstances (Timmons and Spinelli, 2006).

Too many entrepreneurs see the task of writing a business plan as an onerous task they must undertake only if they are seeking outside capital. However, those who do take the time to develop a well-thought-out plan say that experience was an enlightening exercise for everyone involved and made this companies stronger. Building a business plan forces an entrepreneur to ask and to answer questions that are important to their company's ultimate success. Building a solid plan is an essential part of launching a business whether or not an entrepreneur is seeking outside finance. This can be achieved by conducting a detailed market research, having a clear and realistic financial projection, a detailed competitor analysis, and a clear description of the management team (Hisrich, 2007).

Integrating income diversification in Universities requires proper planning before embarking on any investment. The University's strategy requires judicious process in identification of strengths and specificities to develop a branding strategy and Analysis of perspectives for income generation of the University's activities. This calls for strategic planning concept as a tool in planning for new ventures. This engaging reviewing process seeks to assess the internal factors which include profitability analysis, strength, weaknesses, goals and objectives of their organizations while putting into consideration the external environment factors affecting their performance in the market i.e. competition, market segment, regulations and economy. All these factors place the organization in a position where it has to rethink its strategies (Muema, 2009).

Although all Public Universities have instituted reforms, some have done so without benefit of planning unit or section to plan and coordinate these activities. Kenyatta University, for example did not have a planning unit initially. In this case, the annual senior management seminars were used to reflect on the changes to be initiated. In 1995, the idea of coming up with a management structure for income generating units was mooted (Mwiria, 2006). At its base the proposed management structure would comprise project mangers answerable to the Income Generating Activities Board. It was further proposed that the board should set up separate committees such

as projects appraisal committee, a project monitoring and incubation committee and a production and marketing committee (Nderitu et, al., 1995)

Other Universities have accepted, at least in principle, the need for strategic planning. The University of Nairobi, for example established its strategic plan and a wholly University owned company known as the University of Nairobi Enterprises and Services Limited (UNES) was incorporated on May 1996 with its main function as the promotion, management and co-ordination of income generating activities and consultancies (Mwiria, 2006).

2.1.10 Strategic Planning for High Performance of IGUs in Public Universities

Strategic planning is a means of establishing major directions for the University, college/school or department. Through strategic planning, resources are concentrated in a limited number of major directions in order to maximize benefits to stakeholders. In higher education, those stakeholders include students, employers of graduates, funding agencies, and society, as well as internal stakeholders such as faculty and staff. Strategic planning is a structured approach to anticipating the future and "exploiting the inevitable." The strategic plan should chart the broad course for the entire institution for the next five years (Mwiria, et. al., 2007).

McConkey (1981) said that the essence of strategy is differentiation. What makes this University or college or department different from any other? Educational institutions, like other service organizations, can differentiate themselves based on types of programs, delivery systems, student clientele, location, and the like. Similarly, a department or administrative unit involved in strategic planning will identify its unique niche in the larger University community and focus its resources on a limited number of strategic efforts, abandoning activities that could be, should be, or are being done by others.

Development of a strategic plan will depend on the nature of the organization's leadership, culture of the organization, complexity of the organization's environment, size of the organization, experience of planners, etc. Simply strategic planning determines where an organization is going over the next year or more, how it's going to get there and how it will know if it got there or not. For this to be effective, line managers usually do strategic planning especially those at the top of the organization. The focus of a strategic plan is usually on the entire organization compared to the focus of a business plan, which is usually on a particular

product, service or program. Strategic planning lays out specific goals to be achieved by each employee and what is more, the strategy also sets out the course of action for achieving these goals. It provides direction and focus for the organization and employees. A good strategic plan always looks forward three to five years (sometimes longer). It also gives a forecast on how the company will develop and grow over the period in plan (Muema, 2009).

2.1.10.1 Developing a Strategic Plan

The strategic plan is developed by trying to answer three questions about where the organization is, where they want to be in future and finally how to get there (Pearce and Robinson, 2008). Good strategy takes more than just a strong desire. It requires good decision making and thinking. Actually, the greatest value in planning is the thinking process. This comes with ideas, action plans, communication plans, understanding of the situation, and gives an opportunity for embracing the dynamic technology for profitable growth in organizations. The thinking process should involve all the key stakeholders to the company. Involving a wide spectrum of stakeholders in this process assures successful implementation and commitment forward because each one owns the planning process. If this is not done, you may have a scenario where the strategic plan is shelved or resisted (Muema, 2009).

The organization may have to embark on a number of steps while carrying out the strategic plan process. Each step requires a considerable thought and analysis. The steps involve looking at the past and examining business history, analyzing the present using a SWOT analysis, analyzing the future putting into consideration the vision of the business and finally drawing up the goals and objectives guided by the mission and vision statement. The entire plan should be communicated to all staff in the organization from the top management to support staff. This help all staff to accommodate change as outlined on the plan without much resistance. There is also a need for regular review, monitoring and evaluation of the plan as organizations operate in dynamic environments. You also need to understand that strategic plans are not an answer to every challenge faced by the organization but a provision for a platform for success. (Muema, 2009).

2.2 Theoretical Framework

As we have briefly discussed above, the financial resources in terms of capitation from governments has been declining across Sub-Saharan African countries (World Bank, 2010). In order to understand how Public Universities as organizations obtain resources for their survival, theories that explain organizational responses to resource challenges are necessary and appropriate.

Resource dependence theory (RDT) provides useful conceptual tools for understanding organizational responses to financial challenges or austerity. This theory argues that no organization is completely self-contained. The need to acquire resources creates dependencies between organizations and their external units and the scarcity of resources determines the degree of dependency. According to RDT, when resources are in a state of short supply, organizational stability is threatened. Organizational vulnerability occurs. Under such circumstances organizational efforts are directed at regaining stability, at removing the source of the threat to the organization (Mamo, 2011).

RDT conceptualizes environment and organizations as inextricably linked. The environment is understood in terms of other organizations with which the focal organization interacts for acquiring resources. For its survival, an organization must engage in an exchange with its environment. Organizations depend on environment for acquiring vital resources for their survival. Organizational environment include a variety of actors or stakeholders or resource providers that have various demands and expectations. These stakeholders have effects on the activities or outcomes of the resource recipient organization. The environment, along with resources, encompasses regulations, opportunities, competitors, and threats. These environmental aspects can enable for and erect barriers to the ability of the focal organization to obtain resources. The resource recipient organization will have to identify key stakeholders; and thus manage stakeholder relationships to ensure survival in that environment. This theory states that we cannot understand organizational structure or behavior without understanding the context within which it operates (Pfeffer and Salancik, 1978). As in strategic choice approaches, resource dependence theory assumes an active role of individual organizations in their struggle for survival. Organizations also try to actively influence their environment.

Thus, from the resource dependence perspective, Universities can manage resource dependence difficulties arising from state funding by competing for resources from a market. As Universities can operate in multiple markets, they may be able to establish multiple exchange relationships for mitigating disruptive resource instabilities through developing multiple revenue streams (Clark, 1998; Wangenge-Ouma, 2011). RDT suggests two adaptive responses for the development of multiple revenue streams. On the one hand, Universities can adapt and change to fit environmental requirements. On the other hand, they (Universities) can attempt to alter the environment so that it fits their capabilities. The main contribution of resource dependence theory is the detailed analysis of adaptation strategies. These include merging with other organizations, diversifying products and services, co-opting/interlocking directorates, and/or engaging in political activities to influence matters such as regulations (Pfeffer and Salancik, 1978). Administrators of a University become more important because they are mainly responsible for the development and implementation of strategies that help to reduce dependency relationships with the environment (Mamo, 2011).

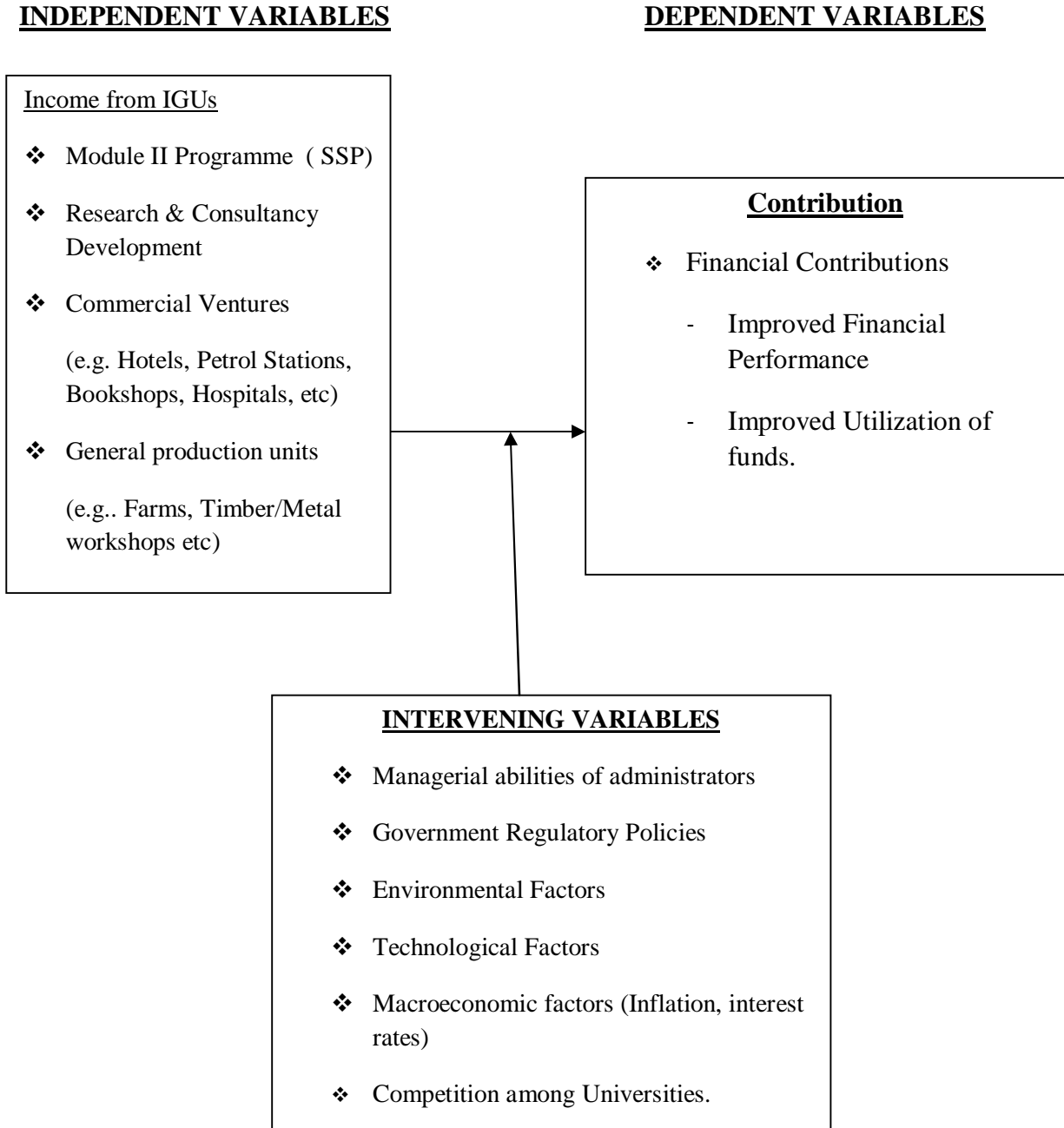
Another theory guiding the study is the human capital theory developed by Schultz in 1960. Schultz in 1960 after extensive study of economic growth in United States of America argued that the growth in output could only be adequately explained by investment in human capital that had taken place in form of formal education, on job training, improved health, adult education and the mobility and migration of workers so that they are able to respond to changing job opportunities. According to this theory, people should invest in education for future gain. Investment in education can be done by an individual or by the society/government or both for future expected benefits (Schultz, 1994).

Development of human knowledge through education is a process of investment which involves incurring both private and social costs. The theory present investment in education in order to enjoy future benefits such as employment opportunities, higher earnings, improved standards of living and higher economic production.

The two theories i.e resources dependency theory (RDT) and human capital theory will form an important theoretical base of this study which intends to evaluate the contribution of IGUs in financing Public Universities.

2.3 Conceptual Framework

The conceptual framework shows the inter-relationship between the dependent and the independent variables on the contribution of IGUs to financing Public Universities.



Source: *Reviewed Literature*

Figure1: Conceptual Framework of the Contribution of IGUs in Financing Public Universities

The conceptual framework shows the various IGUs that a public University can engage to mobilize funds to provide necessary learning recourses and contain the cost of education that is rising sharply. These IGUs were intended to assist Public Universities to cope with diminishing capitation from the government that led to financial distress in those institutions. The various IGUs that Public Universities engaged in include but not limited to Module II programme/SSP, Consultancy and Research Development, Commercial Ventures and General production Units among others.

All these activities will generate additional funds whose benefits should lead to improved financial performance of Public Universities, improved infrastructures in terms of learning facilities, self sufficiency (reduced budget deficits and reliance on government funding), and better pay for workers among others.

The researcher observes that contribution of IGUs is multi-dimensional and mainly consists of the following aspects: financial contributions/benefits, social contributions, talents benefit and science and technological benefits. For the purpose of this research, the researcher will concentrate on financial contributions/benefits because the other aspects will eventually be reflected on financial benefit to a high degree.

However, the success of such venture is determined by other factors both within and without the Universities. These factors are the intervening or moderating variables. The factors include the managerial abilities of the administrators, government policy, Macroeconomic factors (e.g. inflation and interest rates), competition, environmental factors (e.g. climatic conditions), and technology, among others

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter explains the methodology used in the study. It covered the research design, target population, sampling techniques, research instruments, data collection procedures and data analysis techniques

3.2 Research Design

The study used a descriptive research design. This design enabled the researcher to have an in depth information on income generating units in Public Universities, the financial performance of these units, and how the funds generated from these IGUs were utilized in Public Universities.

3.3 Target Population

The study targeted forty two (42) IGUs staff members consisting of 22 Deans, 2 Directors, 14 Managers and 4 Finance officers. There are 9 faculties in Egerton University, 6 faculties in Kisii, 3 faculties in Laikipia and 4 faculties in Chuka University totaling to 22 Deans. The study also targeted 2 Directors of Institutes at Egerton University, 5 IGUs Managers at Egerton (ie ARC Hotel Manager, Farm Manager, Catering Manager, Bookshop Manager and Milk processing Unit Manager). Laikipia, Chuka and Ksii Universities have 3 major IGUs (i.e. Farm, Catering and Bookshop) each headed by a Manager. The target population was summarized in the table below:

Table 1: Target Population

University/Constituent College	Faculty Deans	Directors of Institutes	Other IGUs	Finance Officers	Total
Egerton	9	2	5	1	17
Laikipia	3	-	3	1	7
Kisii	6	-	3	1	10
Chuka	4	-	3	1	8
Total	22	2	14	4	42

Source: Author, 2014

3.4 Sampling Procedures and Sample Size

Since the population was small, a census was conducted on all the 22 Deans of Faculties, 2 Directors of Institutes, and 14 other IGUs Managers. For clarity in budget estimates, revenue and expenditure the study used the four (4) Finance officers in the University and its former Constituent Colleges. The group was manageable and hence, there was no need for further sampling.

3.5 Data Collection Instruments and Procedures

Both primary and secondary data was collected using questionnaire and data collection sheet. For primary data, a single questionnaire designed to elicit quantifiable data (Appendix 4) was used on 22 Deans, 2 Directors and 14 IGUs Managers. A different but an almost similar questionnaire (Appendix 5) was used on the four (4) Finance Officers. The questionnaire was self administered whereby a drop and pick later method was applied as this reduces non-coverage error associated with the mail method. The questionnaire was a combination of both open and closed ended questions. In addition, data collection sheet was used to record secondary data on financial performance from audited financial statements and budgets of the University and its former Constituent Colleges.

3.6 Data Analysis and Presentation

Descriptive statistical analysis was employed to describe frequency, mean and percentages, of responses from respondents in line with the objectives of the study. Secondary data on financial performance and budgets was analyzed using financial ratios. Financial ratios are effective performance indicators for comparing results over several periods (Pandey, 2005). They are simply intended to show trends over a period of time and hence useful in decision making.

Correlation statistical analysis was used to measure the strength of relationship between the internally generated funds and the University expenditure. This was done through a computation of correlation coefficient (r). The Pearson correlation coefficient was then squared to get the coefficient of determination (R) showing the amount of variance explained by IGFs in financing University expenditure. The following formula was therefore employed.

Equation for Correlation Coefficient

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

Where:

N	=	Number of pairs of scores
$\sum xy$	=	Sum of the products of paired scores
$\sum x$	=	Sum of x scores
$\sum y$	=	Sum of y scores
$\sum x^2$	=	Sum of squared x scores
$\sum y^2$	=	sum of squared y scores

3.6.1 Measurement of Variables

To evaluate the contribution of IGUs in Public Universities, the study employed the following methods:-

Financial performance – This means a general measure of a firm’s financial health over a given period of time. There are many different ways to measure financial performance, but all measures should be taken in aggregation. The study measured financial performance of IGUs in Public Universities using the following financial ratios on data derived from Universities’ financial statements.

Return on investment (ROI) - This is a performance measure used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments as follows:

$$ROI = \frac{\text{Income from Investment} - \text{Cost of Investment}}{\text{cost of investmet}} \times 100$$

Liquidity Ratio –This is the determinant of a firm’s debt capacity of the assets relative to its liabilities. In this study, it was used to express the University’s ability to repay short term creditors out of its total cash. If the value is greater than 1, it means the short term liabilities are fully covered and vice-versa.

$$\text{Liquidity Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Debt ratio – This is a financial ratio indicating the proportion of a company’s assets that are financed through debt. It shows how much the company is in debts, making it an excellent way to check the business’s long term solvency. Universities’ debt ratio is expected to reduce as a result of additional income from IGUs due to less borrowing. The higher the ratio, the greater the risk associated with the firm’s operation. This is computed as follows:

$$\text{Debt Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

Utilization of IGFs – The study employed a multi-faceted concept. This involved analyzing the percentage of the IGFs applied to service providers, topping up staff salaries, maintenance of existing facilities, and purchase of teaching materials, among others

Contribution to main University Budget -To measure IGUs contribution to the University budget, the study used the available data to calculate the portion of funds from IGUs’ to the main University budget. Omukoba et. al. (2011) used the concept of contribution to budget in their research on the contribution of IGAs in financing secondary schools in Eldoret Municipality. To calculate the contribution, the following formula was applied.

$$\text{Contribution to University Budget} = \frac{\text{IGUs Budget Share}}{\text{Total University Budget}} \times 100$$

3.7 Validity and Reliability

Validity refers to the quality of data gathering instruments or procedures that enable the instruments to measure what it is supposed to measure. It is the extent to which the instrument covers the objective of the study (Mugenda and Mugenda; 2003). To enhance validity, the research instruments were presented to research experts who are the supervisors from the Department of Accounting, Finance and Management Science in Egerton University. On the other hand, reliability has been defined as the relative absence of error in an instrument or the accuracy or precision of the instrument. It is the ability of the research instrument to give consistent results after a number of repeated trials (Mugenda and Mugenda; 2003). To determine reliability, the researcher piloted the questionnaire using a sample drawn from IGUs in Egerton University but the sample did not form part of the target population.

3.8 Operationalization of Variables

Variable	Measure	Statistic
<u>Dependent Variables</u>		
1. Financial Performance 2. Utilization of Internally Generated Funds 3. Contribution	1. Profitability 2. Appropriation of IGFs 3. Percentage Contribution to Budget	1. ROI 2. Descriptive (Means & Percentage) 3. Descriptive (Means & Percentage)
<u>Independent Variable</u>		
<u>Income From IGUs</u>		
1. Module II Programme	Financial Performance (Profitability)	ROI, Means & Percentages
2. Commercial Ventures	Financial Performance (Profitability)	ROI, Means & Percentages
3. Research & Consultancy	Financial Performance (Profitability)	ROI, Means & Percentages
4. General Production Units	Financial Performance (Profitability)	ROI, Means & Percentages

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 INTRODUCTION

The study sought to evaluate the contribution of IGUs in financing Public Universities. The data collected is expected to show the financial performance of these IGUs, how funds generated from the IGUs are utilized and the contribution they make to finance Public Universities. This chapter presents the analyzed information, which was collected using questionnaires and data collection sheet. The questionnaires were distributed to 22 Deans of Faculties, 2 Directors of Institutes, 14 IGUs Managers and 4 Finance Officers, totaling to 42 staff members. A response rate of 81% was obtained as 34 out of 42 questionnaires were returned. This response rate was considered representative.

4.6 Demographic Information

4.6.1 Gender Distribution

There are high chances of gender disparities in the institutions of higher learning (Wekulo & Musera, 2012). Information and decision making theories propose that diversity in group composition can have a direct positive impact through the increase in skills, abilities, information and knowledge. Demographically diverse individuals are expected to have a broader range of knowledge and experience than a homogenous group.

This study attempted to establish gender distribution as regards the faculties and other IGUs in Egerton University and its former Constituent Colleges. To achieve this, the respondents were asked to state their gender. The findings are summarized in table 2 below.

Table 2: Gender Distribution of Respondents

Category	Male	Female	Total
Faculty Deans	15	3	18
Directors of Institutes	2	0	2
IGUs Managers	6	4	10
Finance Officers	3	1	4
Total	26	8	34
Percentage	76%	24%	100%

Source: Data Analysis (2014)

Table 2 shows that there was significant gender parity among the respondents with 76% of them being male and only 24% female. This implies that the members of female staff in IGUs management positions in the institution is significantly lower than that of male.

4.2.2 Age Distribution

Age of the respondents in IGUs was studied with an attempt to establish the extent the various categories of IGUs management staff are represented in the participation of IGAs. Table 3 below gives a summary of the age composition of the respondents in IGUs.

Table 3: Age Distribution

Age	Frequency	Percentage
25-35 Years	1	3%
36-45 years	6	18%
46 and above	27	79%
Total	34	100%

Source: Data Analysis (2014)

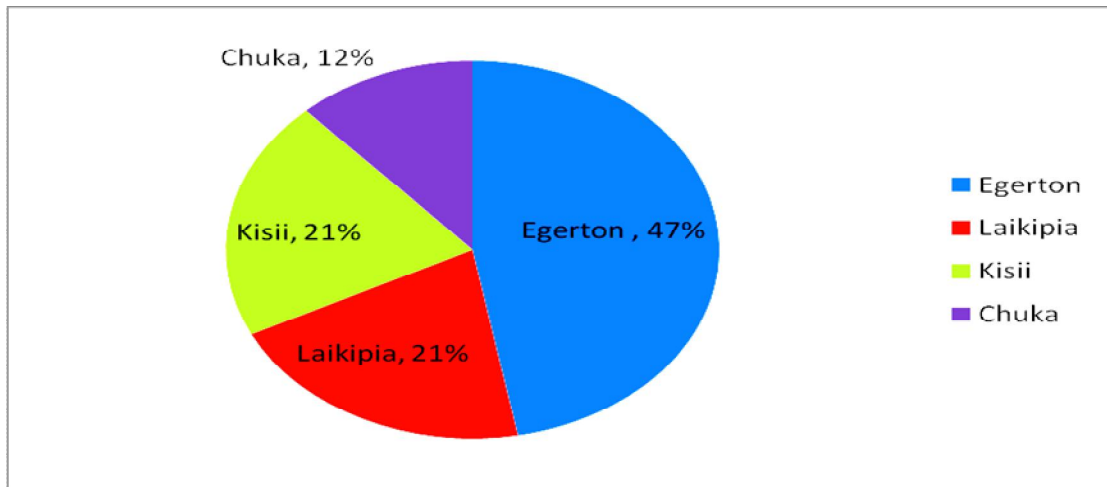
Age is considered a factor in embracing new ideas and innovations. It has been alleged that old academicians are reserved as regards to ICT and new innovations but considerably are apt with experience. On the other hand, young academicians are widely perceived to be technologically able with an ego to engage in new ventures. These characteristics are important in the new era of information and innovations where Universities are expected to be at the helm. Age diversity may have a positive impact on creativity and performance within a group. Age diversity provides greater access to a wider set of information and perspectives and this may enhance group decision making.

Table 3 reveals that, majority (79%) of the respondents managing the IGUs are 46 years and above while (18%) of the respondents fall within the age of 36-45 years. Only (3%) of the respondents was below 35 years of age. This is an indication that majority of the respondents are aged, experienced and knowledgeable in their respective disciplines and that can be useful in identifying entrepreneurial ideas that when implemented can generate additional income to the University. The findings concur with what Wekulo and Musera (2012) observed that work experience increases workers' productivity. However, it does not meet the requirements of age diversity which is believed to provide a wider range of information and perspectives affecting decision making.

4.6.2 Work Station

The target population of the study was drawn from Egerton University and its former constituent colleges. Their distribution was as shown in figure 2 below.

Figure 2: Work Stations of the Respondents



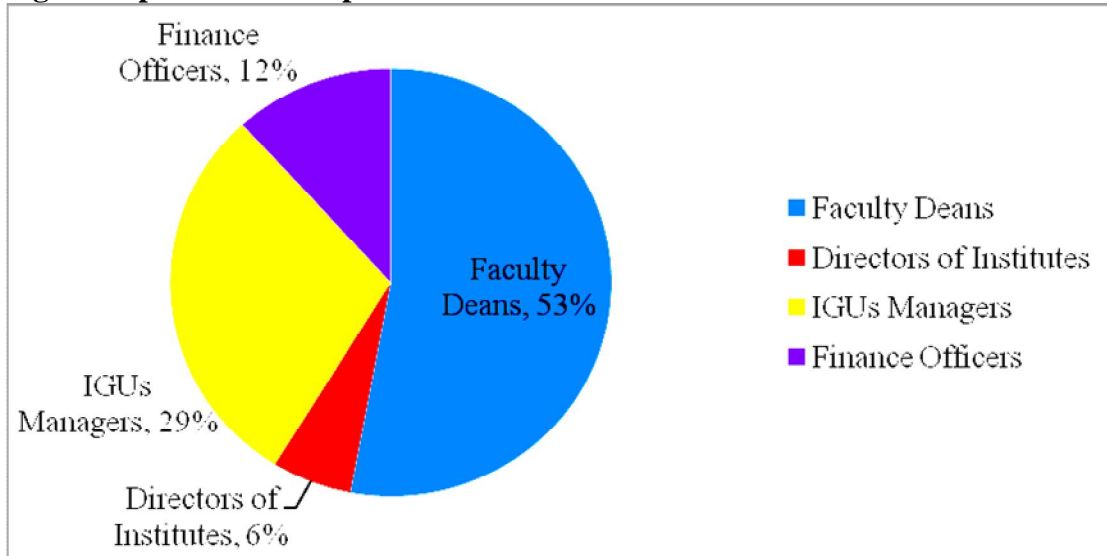
Source: Data Analysis (2014)

Figure 2 shows that majority (47%) of the respondents were from Egerton University. This is due to the fact that Egerton University is a more established University compared to the constituent colleges. Laikipia and Kisii followed at 21% while Chuka had 12% of the respondents in this study.

4.6.3 Position in Employment

The staff members who participated in this study had varying positions in employment. Figure 3 summarizes the distribution of positions held by the respondents.

Figure 3: positions of respondents



Source: Data Analysis (2014)

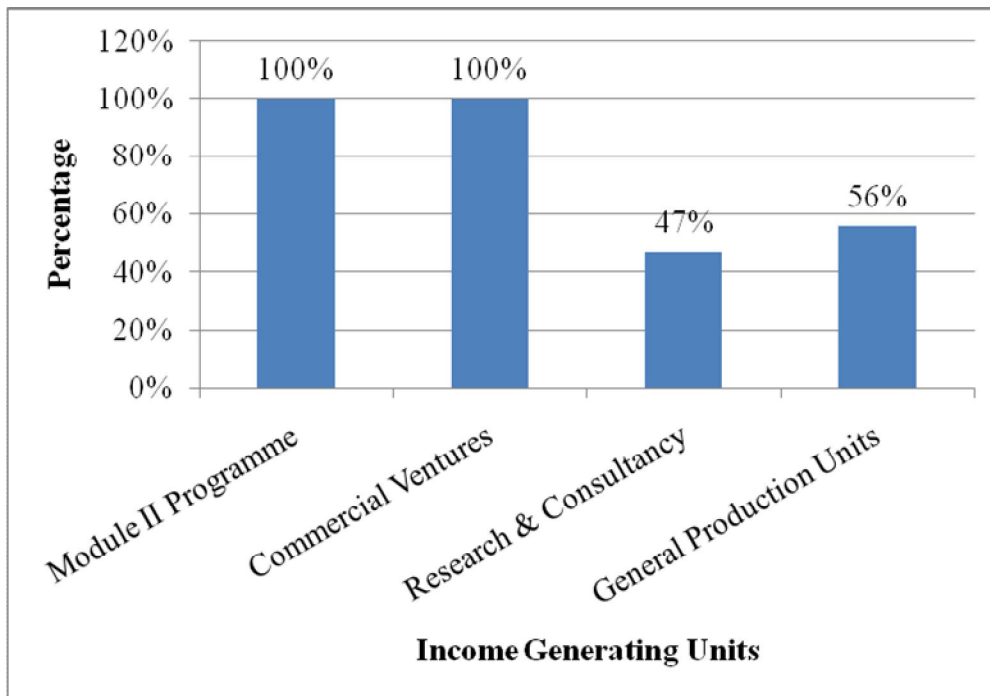
Figure 3 shows that majority (53%) of the respondents were the Faculty Deans. This was due to the high number of faculties at Egerton University and its former constituent colleges. At rank 2 were the IGU Managers at 29% of the respondents. This was followed by the 4 finance officers translating to 12% of the respondents. At the 4th rank were the 2 Directors of institutes, constituting a 6% of the respondents.

4.7 Information about the Projects

4.3.1 Types of Income Generating Activities

With the realization of the need to generate more resources to meet the demand for higher education, most Public Universities initiated IGUs to supplement government resources. The IGUs range from academic to non-academic units. The study sought to establish the IGUs Egerton University and its former Constituent Colleges engage in. The findings were summarized in figure 4 below.

Figure 4: Types of Income Generating Activities



Source: Data Analysis (2014)

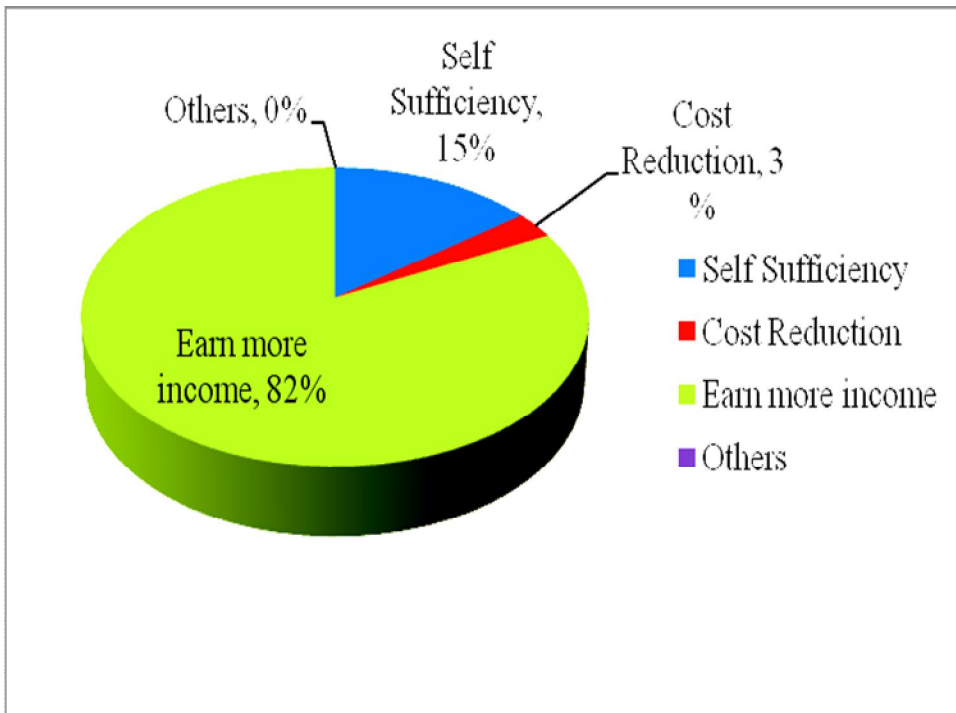
The findings in Figure 4 indicate that there are four major income generating activities in the University and its former constituent colleges. All the 34 respondents agreed that module II and commercial ventures are the approaches adopted to generate income to the University. About 56% of the respondents mentioned that the University has adopted general production units like farming and metal workshops. 47% of the respondents were of the view that Research and Consultancy were also adopted to generate more income to the University.

All the finance officers mentioned that, Module II programme contributes the highest to financing Public University activities. This could be due to the fact that, Public Universities engages in income generating activities in which they have a competitive advantage and this lays in knowledge driven areas of academics.

4.3.2 Reasons for Starting IGUs in Public Universities

The reasons as to why the Income generating Units were started in Egerton University and former constituent colleges as reported by the respondents are summarized in Figure 5 below

Figure 5: Reasons for Starting IGUs



Source: Data Analysis (2014)

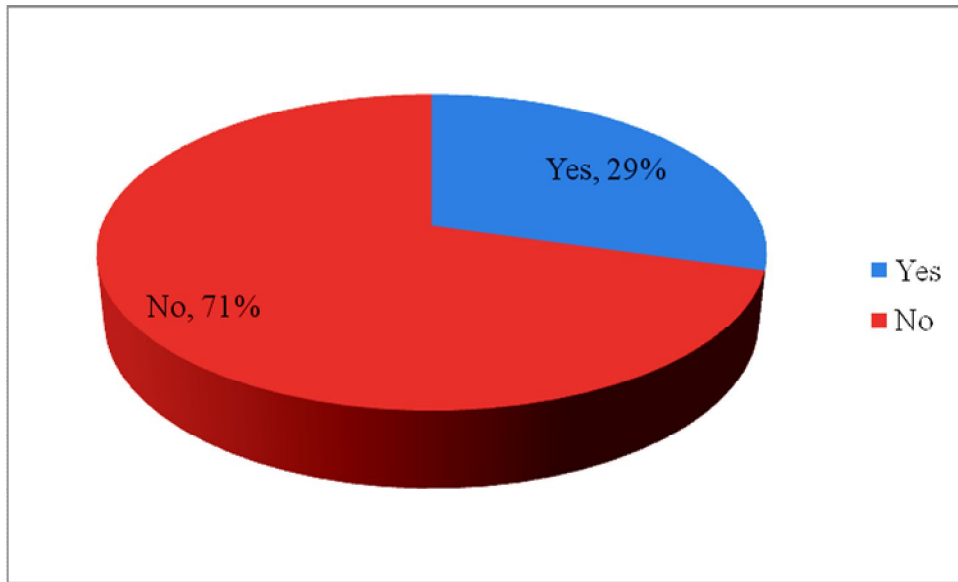
The findings in Figure 5 indicate that majority (82%) of the respondents indicated that IGUs were started in the University to generate more income. Self sufficiency was ranked second at 15% followed by cost reduction at rank 3 with a 3%. The reason to earn more income and be self sufficient was probably necessitated by the ever decreasing capitation from the government. None of the respondents gave another reason as to why Egerton University and former Constituent Colleges started IGUs.

According to the respondents, the decision to invest in the income generating activities was done by the University management board. This was highlighted by 90% of the respondents with only a 10% with different views.

4.3.3 Feasibility Study

An idea for a business startup is not a sufficient reason to begin production straight away, without having thought clearly about the different aspects involved in actually running the business. The study sought to understand if the University conducted a feasibility study before initiating the Income Generating Units. The responses were as shown in figure 6 below.

Figure 6: Feasibility Study



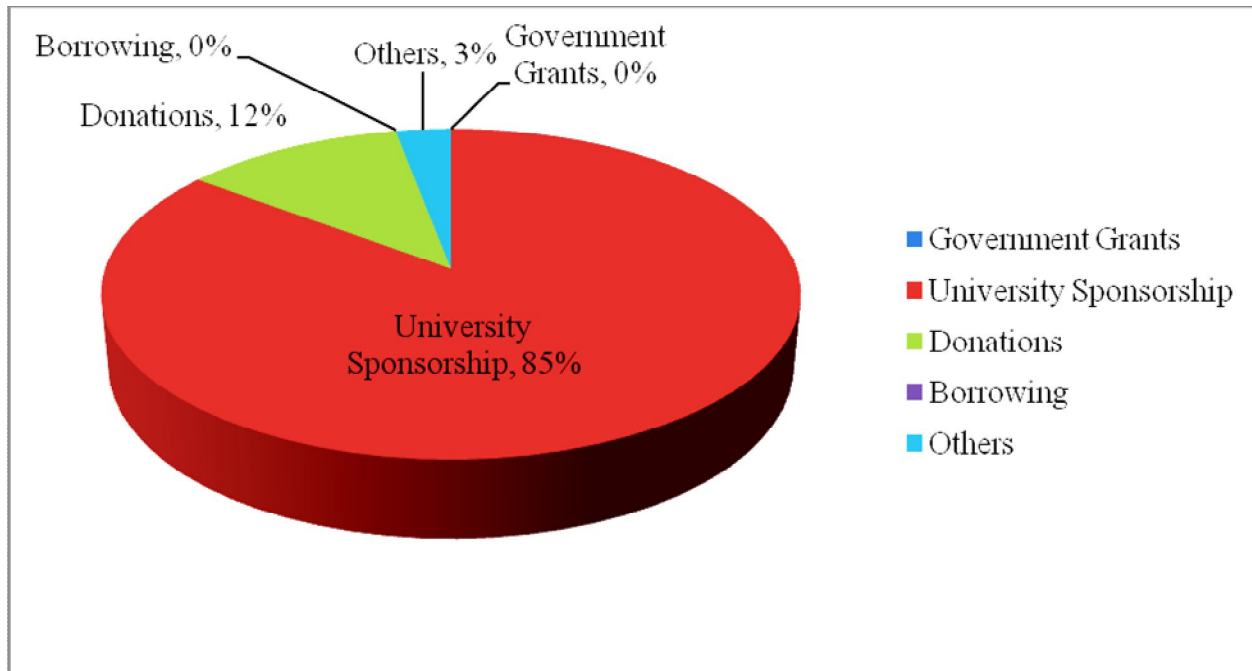
Source: Data Analysis (2014)

Majority (71%) of the respondents said that no feasibility study was conducted before initiating the Income Generating Units. On the other hand, 29% of the respondents said that a feasibility study was conducted before the University embarked on these investments. This implies that the University could suffer from losses due to lack of planning. Too often, people invest money in a business only to find out later that there is insufficient demand for the product. To reduce this risk of failure the University and any producer should conduct a feasibility study and also prepare a business plan. Public universities should carry out feasibility study to examine the potential profitability of the IGAS before implementing them.

4.3.4 Financing of Income Generating Units

The study sought to establish how the Income Generating Units of the University are financed. To achieve this, the respondents were asked to choose against the listed options of financing the IGUs in Egerton University and its former Constituent Colleges. The findings are summarized in Figure 7 as shown below.

Figure 7: Methods of financing Income Generating Units.



Source: Data Analysis (2014)

The findings in Figure 7 indicate that 85% of the respondents gave University sponsorship as the main source of funding Income Generating Units. 12% of the respondents gave donations as a source of funding to the IGUs. This is most probably the research grants in form of donations to enhance the University's research division. One (3%) respondent was specific to re-investing back surpluses to finance IGU activities. None of the respondents gave government grants and borrowings as sources of funds to the IGUs in the University. The general impression from the data in Figure 7 is that the Universities are the main sources of funding IGUs. This implies that there is over reliance by the IGUs on financing by the Universities yet they were supposed to provide more funds to finance the Public Universities.

4.4 Management of the Projects

4.4.1 Income Generating Units' Management Team

Management team is crucial for an organization to succeed in any venture. The study sought to establish those individuals who are involved in the management processes of the IGUs in the University and its former Constituent Colleges. The respondents were asked to identify the people involved in these processes. The results were as indicted in the table 4 below.

Table 4: IGUs Management Team

Management Team	Respondents	Percentage
University Top Management	12	35
Middle Management	21	62
Planning Committee	1	3
Others	0	0
Total	34	100

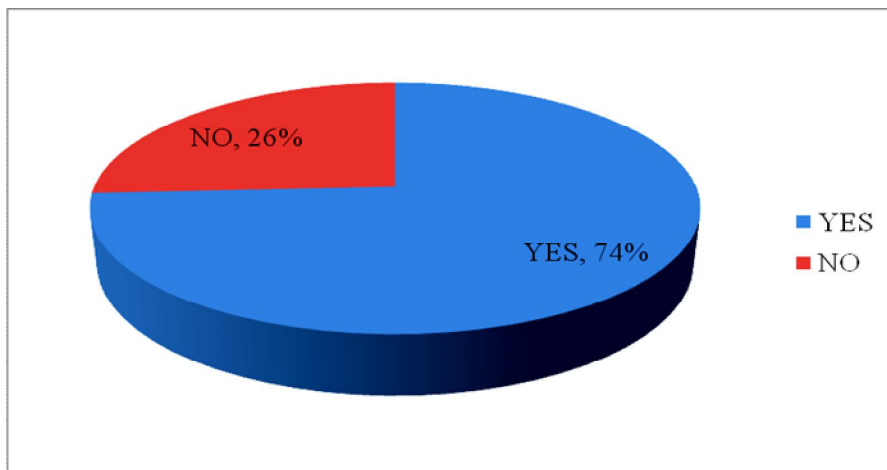
Source: Data Analysis (2014)

Table 4 indicates that, IGUs in Egerton University and its former constituent Colleges are managed by middle managers. This is revealed by 21(62%) of the respondents. 12 of the respondents translating to 35% indicated that the IGUs are managed by the University top Management. One respondent (3%) gave planning committee as one of the management teams of IGUs in the University.

4.4.2 Separate Management team in Projects Implementation and Operations

The study sought to establish whether there are separate management teams for the implementation and operations of the IGUs in the University. The findings were as summarized in Figure 8 below.

Figure 8: Separate Management Team



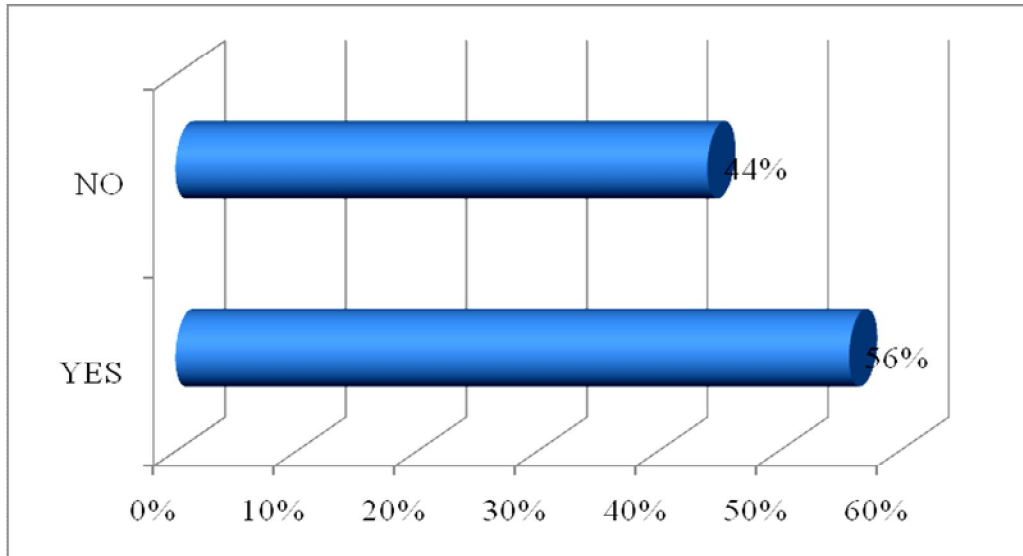
Source: Data Analysis (2014)

The findings as shown in Figure 8 indicates that majority (74%) of the respondents indicated that there are separate management teams involved in managing the IGUs. Only a small percentage (26%) had a view that there are no separate management teams involved during the implementation and operations of the IGUs in the University and its former Constituent Colleges. This means that the IGUs are managed independently which is vital for their success.

4.4.3 Separate Project Monitoring team

The study sought to establish whether there are separate teams to monitor operations of the IGUs in the University. The respondents were asked to state if there is separate monitoring teams and the results are as summarized below

Figure 9: Separate IGUs monitoring teams



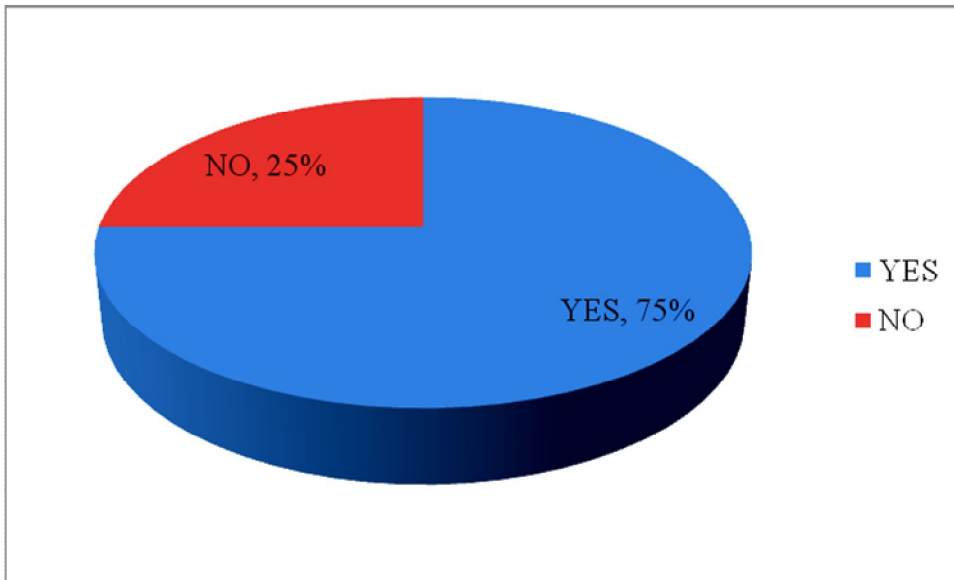
Source: Data Analysis (2014)

Figure 9 show that there is separate monitoring team for the IGUs as indicated by 56% of the respondents. Majority of these respondents indicated that the Internal Audit Department of the University monitors the operations of the IGUs. About 44% of the respondents indicated there is no separate team to monitor the IGUs. This implies that the IGUs conduct internal control procedures which are key elements in the performance of these IGUs. Continuous monitoring and evaluation influences performance of IGUs leading to reliability of financial reporting which are accurate and complete.

4.4.4 Books of Accounts

Book keeping is crucial in any business setup as it shows the financial aspect of the organization. The study sought to establish if the IGUs maintains separate books of Accounts distinct from the University books. Proper book keeping helps to establish financial soundness of the business enterprise and this is crucial in decision making. To establish this, the four finance officers were asked to state if there were separate books of accounts for the IGUs. The findings were as summarized in Figure 10 below.

Figure 10: Separate Books of Accounts



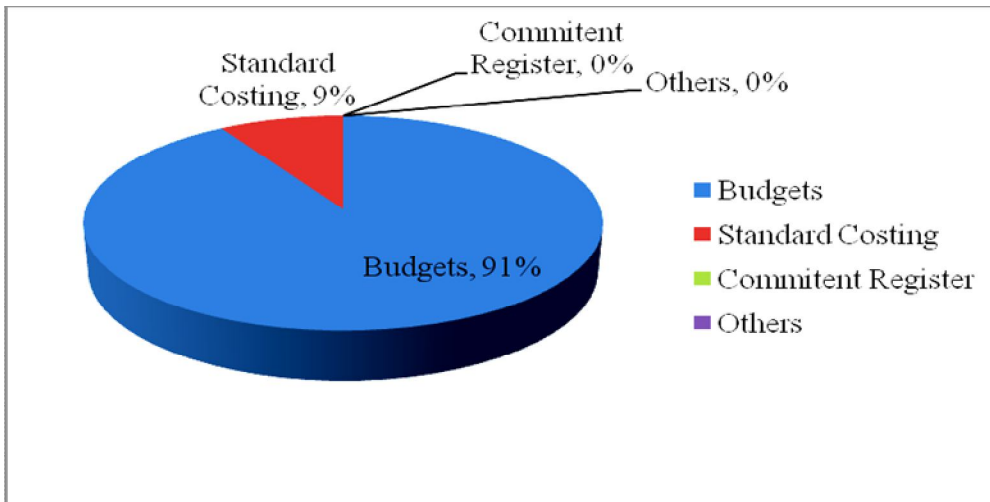
Source: Data Analysis (2014)

The results indicates that, 75% of the 4 finance officers maintains separate books of accounts for the IGUs in their institution. Only one (25%) of the respondents indicated that there are no separate books of accounts for the IGUs in the University. This poses a danger in that it is difficult to make financial decisions without financial data. As to who maintains the books of accounts, all the finance officers indicated that this is done by accountants most of who have CPA qualifications and business related degrees. Book keeping influences performance of IGUs as it affects the reliability of financial reporting which is a key element in decision making.

4.4.5 Project Control

Project control is that element that keeps projects on track and within budgets. The study sought to establish measures adopted by Egerton University and its former constituent Colleges to control deviations and keep the IGUs on track. To establish this, the respondents were required to state the control tools applied by the University to control deviations in cost and revenue. The results are as summarized in Figure 11 below.

Figure 11: Deviation Control Tools



Source: Data Analysis (2014)

Figure 11 indicates that, majority (91%) uses adherence to budgets to control deviations in costs and revenue. Only (9%) of the respondents adopts standard costing. The response of standard costing was given by 3 catering managers while none of the respondents applies commitment register or any other tool to control deviations. This means that the IGUs employ techniques to control deviations. Control of deviations ensure the organizations operate within budgets thus are able to meet their objectives.

4.4.6 IGUs Projects Risks

The study sought to establish the types of risks affecting IGUs in the Universities. To establish this, the respondents were asked to state the major risks facing IGUs within the University. The findings are summarized in Table 5 below.

Table 5: Types of Risks

Risk type	Frequency	Percentage	Rank
Credit risk	6	12	3
Operation risk	13	27	2
Market risk	3	6	4
Students' unrest	27	55	1
Total	49	100	

Source: Data Analysis (2014)

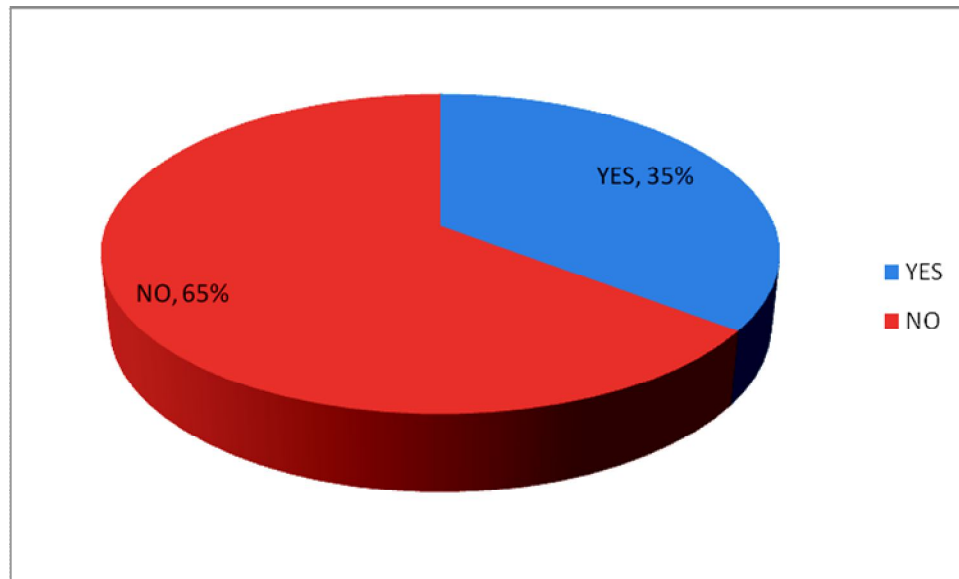
Table 5 indicates that majority (55%) of respondents gave students' unrest as the major risk affecting IGUs in Public Universities. Operation risk was ranked second at 27% while credit risk was third at 12%. Market risk also affects IGUs in Public University though at a lower

percentage. This could be due to the fact that the IGUs deal with internal customers (Students & staff) rather than external customers. This means the IGUs will suffer from students' unrest who happens to be their customers. This will affect productivity and even distraction from mission.

4.4.7 Risk and Return Analysis

Risk management is a crucial aspect in investments and Public Universities are not an exception. The study sought to establish if Public Universities conduct a risk and return analysis on IGUs. The results were summarized in Figure 12 below.

Figure 12: Risk and Return Analysis



Source: Data Analysis (2014)

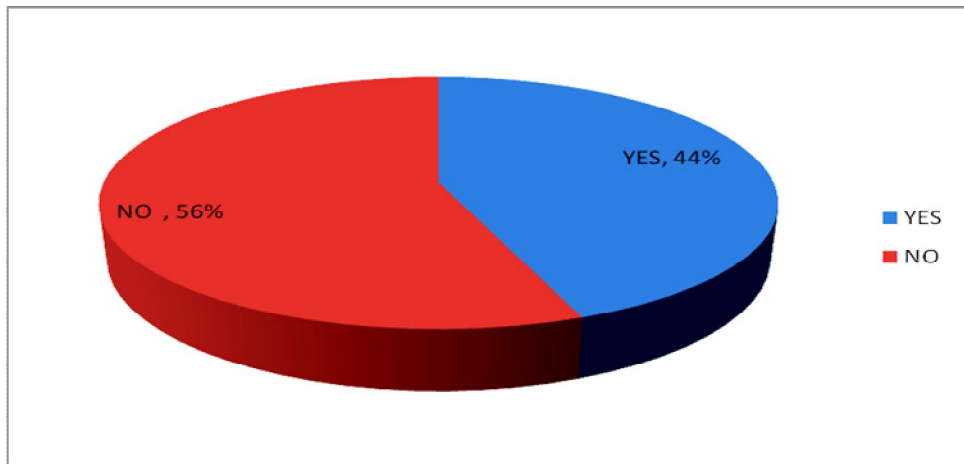
The results indicate that the Universities, as per majority (65%) do not conduct a risk/return analysis on their Income Generating Units. Only 35% of the respondents indicated that the University conducts a risk/return analysis. This means that the Universities may not be able to plan for risk and returns due to lack of information. Risk-return analysis helps managers to recognize both the opportunities and downsides of risks hence are able to weigh risks against rewards. Institutions should also identify and assess risks regularly at multiple levels for the purpose of decision making.

4.5 Financial Performance of Income Generating Units

4.5.1 Profitability of IGUs

The study sought to establish whether IGUs in Public Universities are profitable. The respondents were required to state if the IGUs are profitable or not. The results were as summarized in Figure 13 below.

Figure 13: Profitability of IGUs



Source: Data Analysis (2014)

Figure 13 indicates that 56% of the respondent indicated that the IGUs are not profitable while 44% of the respondents indicated that they are profitable. The study also sought to establish the reasons for financial success or failure of the IGUs and the following were the findings.

Table 6: Reasons for profitability or failure of IGUs

Reasons for profitability	Respondents	Percentage	Rank
Financial Resources	4	33	2
Proper planning	5	42	1
Low cost of inputs	2	17	3
Availability of market for products	1	8	4
Team work	0	0	5
Total	12	100	
Reasons for failure	Respondents	Percentage	Rank
Climatic conditions	2	9	4
Financial problems	4	18	3
Managerial problems	11	50	1
Competition from private firms	5	23	2
Total	22	100	

Source: Data Analysis (2014)

Table 6 shows that majority (42%) of respondents indicated proper planning as the main reason behind the success of IGUs in the University. Availability of financial resources was ranked second at 33% while cost of inputs was third at 17%. About 8% of the respondents indicated that availability of market for their products played an important role for the success of the IGUs.

On the other hand, of the respondents who indicated that the IGUs were not profitable, 50% cited managerial problems as the main reasons behind the poor performance of IGUs while 23% cited competition from the private sector as the main. About 18% of the respondents also indicated financial problem as cause of failure probably due to inability of the IGUs to meet their financial obligations. Only 9% of the respondents cited climatic conditions as the source of failure of IGUs especially the agricultural related.

However, a scrutiny on audited financial statements of the University and its former constituent colleges indicated a divergent view on the financial performance of the Income Generating Units. The following tables summarize IGUs surpluses for Egerton University and its former Constituent Colleges.

Table 7: Egerton University IGU Surpluses in Ksh. "000"

Year	Module II	ARC Hotel	Farm	Dairy	Bookshop	Catering	Combined	Total
	Ksh. "000"	Ksh. "000"	Ksh. "000"	Ksh. "000"	Ksh. "000"	Ksh. "000"	Ksh. "000"	Ksh. "000"
2003	34,565	5,466	1,432	1,714	271	6,407		49,855
2004	16,112	2,811	3,555	2,112	327	(7,616)		17,301
2005	75,599	(4,900)	(7,252)	(487)	102	1,273		64,335
2006	61,820	14,378	(9,459)	743	52	(4,915)		62,619
2007	19,333	(2,630)	4,299	(623)	(59)	2,279		22,599
2008	40,363	(277)	3,113	(1,499)	86	(8,376)		33,410
2009	35,698	2,766	(7,872)	45	(423)	(5,947)		24,267
2010							154,136	154,136
2011							45,504	45,504
2012							149,477	149,477
Total	283,490	17,614	(12,184)	2,005	356	(16,895)	349,117	623,503
N	7	7	7	7	7	7	3	10
Mean	40,499	2,516	(1,741)	286	51	(2,414)	116,372	62,350

Source: Data Analysis (2014)

Table 7 shows the financial performance of the IGUs in Egerton University. On average, the IGUs are profitable except for farm and catering having an average loss of Kenya shillings 1.7

million and shillings 2.4 million respectively. The Table confirms the statement by the finance officers as indicated in item 4.3.1 paragraph 3, that module II is the most profitable IGU in the University. A consolidated summary including Constituent Colleges was as summarized in the Table 8 below.

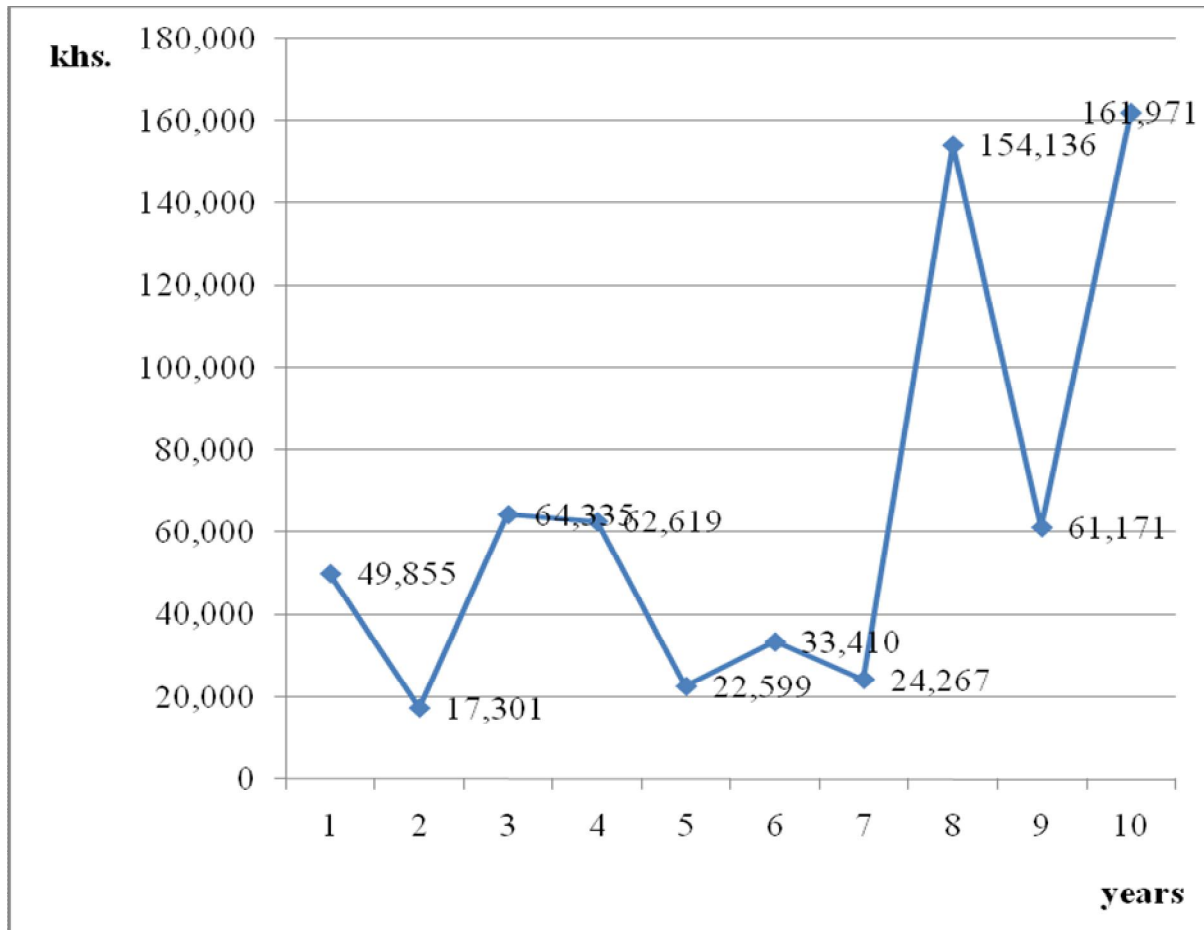
Table 8: Summary of IGUs Surpluses in Ksh. "000" – Consolidated

	Egerton	Laikipia	Kisii	Chuka	Total
Year	Ksh."000"	Ksh."000"	Ksh."000"	Ksh."000"	Ksh."000"
2003	49,855				49,855
2004	17,301				17,301
2005	64,335				64,335
2006	62,619				62,619
2007	22,599				22,599
2008	33,410				33,410
2009	24,267				24,267
2010	154,136				154,136
2011	45,504	3,325	12,342		61,171
2012	149,477	2,731	9,763		161,971
Total	623,503	6,056	22,105	0	651,664
n=10	10	2	2		10
Mean	62,350	3,028	11,053	0	65,166

Source: Data Analysis (2014)

Financial data from Chuka University College was hard to come by and therefore have not been included. This created data gaps as all the intended data was not available to assist in making an informed decision. Data from the three campuses from 2003 -2010 have not been indicated as they formed part of consolidated financial statements of the then mother University. Individual financial statements were prepared after the campuses became constituent college of Egerton University. All this may have led to limitations of the research objective in assessing the financial performance of the IGUs in the University. However, from the available data as analyzed in Table 8, it can be deduced that the IGUs in Egerton University and former Constituent Colleges are profitable with a rising trend as indicated by Figure 14 below.

Figure 14: IGUs Surpluses



Source: Data Analysis (2014)

Figure 14 above indicates that the surpluses of IGUs in Egerton University and its former Constituent Colleges had a rising trend except for the drastic decline in the 9th year, 2011. However, a scrutiny on the financial statements showed that personnel emoluments were not included in IGUs expenditure but under the total University expenditure. This implies that the reported surpluses from IGUs could actually be losses if expenditure on personnel emoluments for staff engaged in these IGUs is reported as part of their expenditure.

4.5.2 Return on Investment

The study sought to measure the performance of IGUs using a computation of return on investment from Egerton University and its former Constituent Colleges. The results were as follows.

Table 9: Return on Investment

S/No.	Year	IGUs Revenue	IGUs Expenditure	Actual Contribution (Surpluses to University)	ROI in Percentage
		Ksh. "000"	Ksh. "000"	Ksh. "000"	
1	2003			49,855	No IGUs data
2	2004			17,301	No IGUs data
3	2005			64,335	No IGUs data
4	2006			62,619	No IGUs data
5	2007			22,599	No IGUs data
6	2008			33,410	No IGUs data
7	2009	404,219	339,757	24,267	7
8	2010	558,319	404,183	154,136	38
9	2011	463,345	402,174	61,171	15
10	2012	671,104	509,133	161,971	32
	Total	2,096,987	1,655,247	401,545	24
	n	4	4	4	
	Mean	524,247	413,812	100,386	24

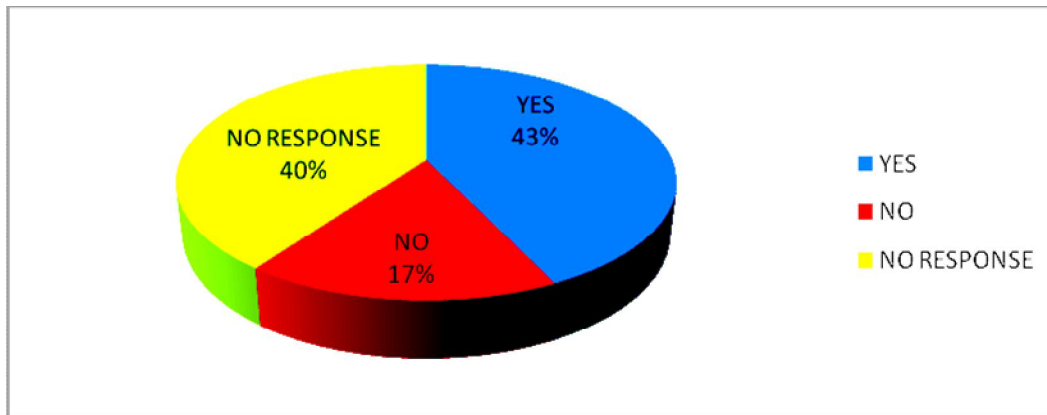
Source: Data Analysis (2014)

Preparation of financial statements was not consistent within the period. Different formats were applied in reporting IGUs financial data within the period. During the period 2003-2008, there was no inclusion of IGUs income and expenditure in the audited financial statements but only a figure of surpluses. This made it difficult to compute ROI for the six years. From 2009-2012, a different format showing consolidated income and expenses for the IGUs was available. However, Table 9 indicates that on average for the four years, IGUs had a return on investment of 24%. Data on individual IGUs was not available hence it was not possible to compute a return on investment for the individual units.

4.5 Utilization of Internally Generated Funds

Distribution of IGFs in Public Universities has generated new dilemmas to these Universities on the sharing formula and allocation of the funds generated. The study sought to establish whether the University has a distribution policy on income generated through IGUs and if there is, what percentage goes to various line items. The findings were summarized in Figure 15 below.

Figure 15: Policy on Distribution of Internally Generated Funds



Source: Data Analysis (2014)

Figure 15 shows that 43% of the respondents indicated that indeed a policy on distribution of IGFs exist while 17% indicated there is no policy on distribution of this income. Fourteen (40%) of the respondents did not respond to this question probably due to its sensitivity.

In regard to percentage allocation to various line items, only two (6%) finance officers indicated the figures but they were also varied. A sample policy document from Egerton University on the distribution of income from Module II programme indicates the following distribution formula.

Table 10: Distribution of Income from Self sponsored programmes (SSPs)

Item	Percentage
University Share	30%
Service Providers	35%
Teaching Materials	10%
Research Function	15%
Outreach Programmes	0%
Utilities (Rent & Electricity)	10%
Improvement of Facilities	0%
Total	100%

Source: Egerton University SSP Policy

According to the Table, 30% of the total income from SSPs goes to the University. About 35% of the total income is supposed to pay lectures while teaching materials have been allocated 10% of the total income. Research function and utilities have been allocated 15% and 10% respectively. However, according to the finance officer of Egerton University, this policy is never followed and especially the 35% to service providers as the University have adopted an

hourly rate for payment to lecturers rather than a percentage of the income. In relation to the other IGUs, no policy document was available and therefore the study was not able to include any other income distribution policy. This implies that, there is definitely a need for Public Universities to define clearly the budget items for which the IGUs must cater for within the budget framework.

4.6 Contribution of the Income Generating Units

4.9.1 Financial Benefits of Income Generating Units to Public Universities

Public Universities seek to diversify their income base to mitigate the risks linked to excessive dependency to the government. They are driven by the need to obtain flexible unconstrained money which they may use to fund current core activities. In addition, there are other benefits accruing from these IGUs. The study sought to establish the various benefits accruing from the IGUs in Egerton University and its former Constituent Colleges. The findings are summarized in Table 11 below.

Table 11: Benefits of Income Generating Units

Benefits	Frequency	Percentage	Rank
Financial	29	55%	1
Social	9	17%	3
Technological	15	28%	2
Total	53	100%	

Source: Data Analysis (2014)

Table 11 indicates that financial benefits was ranked at position one with 55%. This was followed by technological benefits at 28% with only 17% in favor of social benefits.

4.7.2 Improvement on University's Financial Performance

The initiation of IGUs was anticipated to alleviate the problem of underfunding and declining capitation from the government. Pressed by the severity of inadequate government funding, Kenya's public universities have been making efforts to diversify their sources of revenue. These institutions are reportedly carrying out a number of revenue diversification initiatives to supplement government funds. The significance of these initiatives in the financing of public universities in Kenya, however, has not been well documented. The potential of these self-financing initiatives in overall financing of these institutions, therefore, remains a matter of speculation (Riechi, 2012).

The study sought to establish whether the IGUs addressed the financial problems affecting Public Universities. To address this, the four finance officers of Egerton University were asked to indicate whether there has been an improvement on University’s financial performance after the establishment of IGUs and to what extent. The findings were summarized in the Table 12 below.

Table 12: Improvement on University’s Financial Performance

Has there been an improvement on University financial Performance?	Frequency	Percentage
YES	4	100
NO	0	0
Total	4	100
To what extent?	Frequency	Percentage
Very Little Extent	2	50
Moderate Extent	1	25
Large Extent	1	25
Total	4	100

Source: Data Analysis (2014)

All (100%) the finance officers indicated that there has been an improvement on University’s financial performance. However, 50% indicated that this has been to a very little extent. About 25% indicated that the improvement has been moderate while only 25% indicated that the improvement has been to a large extent. This implies that indeed there has been an improvement on the financial operations of the University and its former Constituent Colleges after the establishment of IGUs. The findings concur with those of Riechi (2012) on revenue diversifications and its influence on performance in public Universities in Kenya. According to the study it was found that about 50 percent of the total non-governmental revenues for Kenyan public universities accrue from academic related income generating initiatives

4.7.3 Contribution to Budgets

The study sought to establish whether IGUs contribute to financial operations of the University and its former Constituent Colleges through budgets. An analysis on the budgets was as indicated the Table 13 below.

Table 13: IGUs Budgeted Contribution

Year	Total University Budget				IGU Budgeted Contribution				IGUs % Contribution
	Egerton	Laikipia	Kisii	Total	Egerton	Laikipia	Kisii	Total	
	Ksh. in Millions	Ksh. in Millions	Ksh. in Millions	Ksh. in Millions	Ksh. in Millions	Ksh. in Millions	Ksh. in Millions	Ksh. in Millions	%
2003	1,211			1,211	25			25	2%
2004	1,333			1,333	70			70	5%
2005	1,433			1,433	126			126	9%
2006	2,077			2,077	135			135	7%
2007	2,488			2,488	359			359	14%
2008	3,173			3,173	762			762	24%
2009	3,071			3,071	826			826	27%
2010	2,946			2,946	892			892	30%
2011	3,334	493	592	4,419	935	17	26	977	22%
2012	3,468	662	723	4,853	1,084	21	30	1,134	23%
n=10	24,535	1,155	1,315	27,005	5,213	38	55	5,306	20%
Mean	2,454	116	132	2,701	521	4	6	531	20%

Source: Data Analysis (2014)

The Table shows that projected contribution from IGUs had been increasing steadily from 2% in 2003 to the highest at 30% in year 2010. Over the ten years (2003-2012), budgeted contribution of IGUs financing total budget had an average of 20%. According to Riechi (2012), external sources of revenue for public Universities, which include donor grants and university linkage programmes, account for over 90 percent of the development expenditure budgets and form a substantial proportion of funds for research activities in Kenyan public universities. However, actual contribution in terms of surpluses from the IGUs was very low. The following Table indicates variances on IGUs actual and budgeted surpluses

Table 14: Budget Variance Analysis

Year	Actual Surplus - consolidated	Budgeted Surplus – Consolidated	Variance	% Compliance with Budget
	Ksh. "000"	Ksh. "000"	Ksh. "000"	
2003	49,855	25,000	24,855	199
2004	17,301	70,000	(52,699)	25
2005	64,335	125,670	(61,335)	51
2006	62,619	135,392	(72,773)	46
2007	22,599	358,805	(336,206)	6
2008	33,410	762,315	(728,905)	4
2009	24,267	826,418	(802,151)	3
2010	154,136	891,531	(737,395)	17
2011	61,171	977,294	(916,123)	6
2012	161,971	1,133,974	(972,003)	14
Total	651,664	5,306,399	(4,654,735)	12
n	10	10	10	
Mean	65,166	530,640	(465,474)	12

Source: Data Analysis (2014)

The Table indicates that the University and its constituent Colleges have not been achieving the targeted IGUs surpluses. For the ten years analyzed, all the years had negative variances except for 2003 which had a positive variance. This implies that the university and its Constituent Colleges have been over-budgeting. All the years shows a non compliance with the budgets except for 2003 with 199% compliance. On average, the University only achieved a 12% for the 10 years of the budgeted surpluses from IGUs. The variances are too high with an average of 88% non-compliance with the budget. The budgeted 20% contribution to budget is low because after comparing with the actual, all the years had negative variances. This implies that there is need for the University to align its budgets with the reality by taking into consideration the actual surpluses achieved.

4.7.4 Contribution to University Liquidity

Liquidity reflects the ability of an organization to meet its short-term obligations using assets that are most readily converted into cash. The study sought to establish whether IGUs contribute to the liquidity of the University and its former Constituent Colleges. The findings are summarized in Table 15 below.

Table 15: University Liquidity

Total Liquidity				
S/No.	Year	University Current Assets	University Current Liabilities	Current Ratio
		Ksh. "000"	Ksh. "000"	C.A/C.L
1	2003	644,983	948,434	0.68
2	2004	587,575	628,825	0.93
3	2005	658,105	452,868	1.45
4	2006	827,533	370,262	2.23
5	2007	727,698	320,112	2.27
6	2008	753,033	406,747	1.85
7	2009	655,431	353,106	1.86
8	2010	783,736	392,705	2.00
9	2011	768,337	473,059	1.62
10	2012	1,555,421	1,275,523	1.22
n=10	Total	7,961,852	5,621,641	1.42
IGUs Liquidity				
S/No.	Year	IGUs Current Assets	IGUs Current Liabilities	Current Ratio
		Ksh. "000"	Ksh. "000"	C.A/C.L
1	2003	12,985	20,085	0.65
2	2004	76,870	22,666	3.39
3	2005	108,751	21,368	5.09
4	2006	130,848	29,726	4.40
5	2007	167,149	26,645	6.27
6	2008	116,553	31,796	3.67
7	2009	84,260	42,347	1.99
8	2010	121,843	48,395	2.52
9	2011	99,829	46,837	2.13
10	2012	201,130	80,787	2.49
n=10	Total	1,120,218	370,652	3.02
Mean		112,022	37,065	3.02

Source: Data Analysis (2014)

Table 15 contains two sets of data on University and IGUs to compute respective liquidity. The first set of data was used to compute the cumulative liquidity including IGUs while the second set was IGUs only. The table shows that the University and its Constituent Colleges had a current ratio of 1.42. This implies that the University is able to cover its current liabilities 1.42 times. IGUs current assets are able to cover their liabilities 3.02 times. Based on the proportion

of IGUs current assets to the University's total current assets, IGUs contribution liquidity is computed as follows;

$$\text{Contribution to Liquidity} = \frac{\text{IGUs Current Assets}}{\text{Total Current Assets}} \times \text{Total Current Ratio}$$

$$\text{Contribution to Liquidity} = \frac{112,022}{796,185} \times 1.42 = 20\%$$

The computation of contribution to liquidity by the IGUs is 20%. This implies that the IGUs are contributing 20% for the University's Assets to cover 1.42 times of their liabilities. Generally, the larger the liquidity ratio, the better the ability of a company's current assets to meet its immediate obligations as they fall due.

4.7.5 Contribution to University Debt Ratio

Debt ratio indicates the proportion of a company's assets that are financed through debt. The study sought to establish how IGUs are contributing to the debt ratio of the University. The analysis of the debt ratio was as in the table below.

Table 16: Debt Ratio

Year	University Debts Excluding IGUs	University Assets Excluding IGUs	Debt Ratio	IGUs Total Debts	IGUs Total Assets	IGUs Debt Ratio	University Total Debts	University Total Assets	Total Debt Ratio
	Ksh. in Millions	Ksh. in Millions	%	Ksh. in Millions	Ksh. in Millions	%	Ksh. in Millions	Ksh. in Millions	%
2003	928.3	3,036.3	30.6	20.1	13.0	154.7	948.4	3,049.3	31.1
2004	673.0	2,958.1	22.8	22.7	76.9	29.5	695.7	3,034.9	22.9
2005	433.8	3,058.3	14.2	21.4	108.8	19.6	455.2	3,167.1	14.4
2006	345.3	3,382.5	10.2	29.7	130.8	22.7	375.0	3,513.3	10.7
2007	297.6	3,874.5	7.7	26.6	167.1	15.9	324.2	4,041.7	8.0
2008	379.2	4,628.4	8.2	31.8	116.6	27.3	411.0	4,745.0	8.7
2009	313.3	4,332.2	7.2	42.3	84.3	50.3	355.6	4,416.5	8.1
2010	377.4	4,705.6	8.0	48.4	121.8	39.7	425.8	4,827.5	8.8
2011	426.2	4,142.6	10.3	46.8	99.8	46.9	473.1	4,242.5	11.2
2012	1,194.7	5,068.4	23.6	80.8	201.1	40.2	1,275.5	5,269.6	24.2
	5,368.9	39,187.0	13.7	370.7	1,120.2	33.1	5,739.6	40,307.2	14.2

Source: Data Analysis (2014)

The table indicates that the debt ratio increased with a very small margin from 13.7% to 14.2%. IGUs had a debt ratio of 33.1% as shown from the analysis. Generally, the debt ratio is expected to decrease with an increase in assets and reduction of liabilities. The increase in Debt ratio therefore, though at a very small margin of 0.5%, implies that IGUs were not contributing to reduction of the debt ratio.

4.8 Relevance of the IGUs.

4.8.1 Effectiveness of IGUs in Addressing Financial Challenges in Public Universities

Relevance of IGUs in Public Universities lies in their ability to address financial difficulties in these Universities, due to the diminishing capitation from the Government. The study sought to establish whether the IGUs have been effective in addressing the problem of underfunding in Egerton University and its former Constituent Colleges, and if there is a conflict of IGUs with the University's core activities. The findings are summarized in Table 17 below.

Table 17: Relevance and Effectiveness of IGUs

Are they effective?	Respondents	Percentage
YES	7	21
NO	27	79
Total	34	100
Compromise with core activities		
Is there a compromise?	Respondents	Percentage
YES	5	15
NO	29	85
Total	34	100

Source: Data Analysis (2014)

Table 17 shows that majority (79%) indicated that the IGUs in Egerton University have not been effective in addressing financial problems in Egerton University and its former Constituent Colleges. Only 21% of the respondents indicated the IGUs are effective. Regarding whether there is conflict of IGUs with core activities, 85% of the respondents indicated that there is no compromise of IGUs with the University's core activities of teaching and research with 15% of respondents indicating that operations of IGUs compromise teaching and research in the University. This means that the diversification does not affect the core business of teaching and research in the University.

4.8.2 Recommendations

The study sought views from respondents on how to improve effectiveness of IGUs in Public Universities. It can be deduced from the varied views that, for Public Universities to be effective there is need to strengthen income generation through innovations and inventions. It was also recommended that management organ of Public Universities to take radical steps to establish special investment companies to coordinate all IGUs, like the one established by the University of Nairobi –UNES (University of Nairobi Enterprise Services) Ltd. These units should be autonomous and independent and should operate in a private enterprise manner. They should also be manned by efficient and motivated individuals, who are also business oriented. Only this way can Public Universities be able to effectively utilize the available resources and generate wealth to effectively contribute towards their development and reduce reliance from Government.

4.9 Correlation analysis between IGF and Total actual Expenditure

Correlation analysis is a relational statistic to establish quantitative relationship between two variables. As IGUs is one of the sources of income to finance Public University expenditure, it is clear that there exist a logical relationship among these two variables. To establish whether there is a relationship between the two variables, Pearson product moment correlation was computed from the data shown in the table below.

Table 18: University Financing Through IGUs

S/No.	Year	IGUs. Financing	Total University Expenditure	Percentage IGF
		Ksh. “000”	Ksh. “000”	
1	2003	49,855	1,215,017	4%
2	2004	17,301	1,273,227	1%
3	2005	64,335	1,806,313	4%
4	2006	62,619	2,139,203	3%
5	2007	22,599	2,366,158	1%
6	2008	33,410	2,565,861	1%
7	2009	24,267	2,574,006	1%
8	2010	154,136	3,047,218	5%
9	2011	61,171	3,188,852	2%
10	2012	161,971	3,471,640	5%
	Total	651,664	23,647,495	3%

Source: Data Analysis (2014)

Table 18 indicates that on average, IGUs are financing the total University expenditure by 3%. This is a very low percentage compared to the budgeted financing at 20%. Pearson product moment correlation was computed using Table 19 below

Table 19: Correlation analysis between IGF and Total actual Expenditure

Year	IGU Financing	Total University Expenditure			
	x	Y	xy	x ²	y ²
2003	49.9	1,215.0	60,574.7	2,485.5	1,476,266.3
2004	17.3	1,273.2	22,028.1	299.3	1,621,107.0
2005	64.3	1,806.3	116,209.1	4,139.0	3,262,766.7
2006	62.6	2,139.2	133,954.8	3,921.1	4,576,189.5
2007	22.6	2,366.2	53,472.8	510.7	5,598,703.7
2008	33.4	2,565.9	85,725.4	1,116.2	6,583,642.7
2009	24.3	2,574.0	62,463.4	588.9	6,625,506.9
2010	154.1	3,047.2	469,686.0	23,757.9	9,285,537.5
2011	61.2	3,188.9	195,065.3	3,741.9	10,168,777.1
2012	162.0	3,471.6	562,305.0	26,234.6	12,052,284.3
∑	651.7	23,647.5	1,761,484.6	66,795.2	61,250,781.6

Source: Data Analysis (2014)

Using the available data in Table 19 above, correlation coefficient (r) was computed as follows

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

$$r = \frac{10(1,761,484.6) - (651.7)(23,647.5)}{\sqrt{[10(66,795.2) - (651.7)^2][10(61,250,781.6) - (23,647.5)^2]}}$$

$$r = 0.6$$

$$r^2 = 0.37$$

Calculating the correlation coefficient (r) from the data, r was found to be 0.6 positive, indicating moderate relationships between IGFs and total expenditure of the University and its former Constituent Colleges. Similarly coefficient of determination, which is the square of correlation coefficient, was found to be approximately 0.37 or 37% indicating that 37% of change in total expenditure is explained by change in IGF and the remaining 63% by some other factors.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.7 INTRODUCTION

In this chapter, the researcher summarizes the main findings, draws conclusions and makes recommendations based on the findings of the study. Discussion of the results is based on the themes in chapter four.

5.8 OVERVIEW OF THE STUDY

The study was about an Evaluation of the Contribution of Income Generating Units in Financing Public Universities. The researcher sought to assess the financial performance of the IGUs in public Universities, the utilization of the internally generated funds and what contribution the IGUs have in financing Public Universities. The following items were covered in the study namely; demographic information of the respondents, general information about the projects, management of the IGUs, financial performance, utilization of IGFs, contribution of IGUs to financing Public Universities and the relevance of these IGUs in addressing financial hardships.

5.9 SUMMARY OF FINDINGS

5.9.1 Demographic information about respondents

The study showed that there is big gender parity with a high number of male holding management positions as compared to female. This implies that the University has not met the threshold of a third rule on gender balance. The study also indicated that majority (82%) of Deans and Managers are aged 46 years and above. This implies that the IGUs are managed by experienced people with a vast years of experience hence can be able to offer directional leadership. However, young people are perceived to be technologically able with an ego to engage in new ventures. Public Universities should therefore balance between the old and young to improve the performance of the IGUs.

5.9.2 General Information About the IGUs

The study indicated that Egerton University and its former Constituent Colleges initiated various income generating units to earn more income and address the issue of diminishing capitation from the government. The main IGUs in Egerton University and its former Constituent Colleges

are the module II programme/SSP, commercial ventures, research and consultancy and general production units like farm. According to the four finance officers, module II programme contribute the highest to financing the University. The study also indicated that the main source of funding to the IGUs is through the University sponsorship.

5.9.3 Management of the IGUs

The findings indicated that there is autonomy in the management of the IGUs. This was indicated by the fact that there are separate teams for implementation, operation, monitoring and control. However there is a lot of influence from the University top management who are involved in decision making, hence lack of independence in management of the IGUs.

As depicted from the findings, there are separate books of accounts but maintained by Finance departments. This implies that the IGU managers do not play a role in preparation of their accounts hence cannot be able to know exactly their financial positions. The alleged separate books of accounts were in fact support schedules to University's consolidated accounts. Egerton University and its former Constituent Colleges use a consolidated budget as a control tool to deviations.

The University just like any other business venture is faced with enormous risks. Due to the fact that the Public Universities engaged in areas where they have a competitive advantage which is teaching and research, the highest (55%) risk therefore is the students' unrest. However, the University does not conduct a risk/return analysis as indicated by 65% of the respondents hence making it difficult to undertake risk management and control measures.

5.9.4 Financial Performance of the IGUs.

The profitability of IGUs in Egerton University and its former constituent Colleges cannot be verified. Majority (56%) of the respondents indicated that the IGUs are not profitable while 44% indicated the IGUs are profitable. Of the respondents not in favor of IGUs profitability, 50% of them cited managerial problems as the main factor affecting these IGUs. On the other hand, of the 44% in favor of IGUs profitability, 42% of them gave proper planning as the main reason behind IGUs profitability. The computed return on investment stood at 24%. The data also indicated that module II programme has the highest return.

Even though audited financial statements shows IGUs income have been surpassing their expenditure, a substantial item in terms of personnel emoluments was not forming part of IGUs expenditure but rather was accounted for under University expenditure. This implies that, the reported IGUs surpluses could actually be losses if all the expenditure relating to IGUs is accounted for in their respective expenditure.

5.9.5 Utilization of Internally Generated Funds

The University and its former Constituent Colleges do have distribution policy on internally generated funds. This is according to 43% of the respondents. However, the utilization of the funds is not clearly defined as the respondents were not able to indicate percentages of utilization of IGFs to various line items. This implies that, there is need for sensitization to IGUs staff on utilization policy. In addition, Public Universities need to define clearly the budget items for which the units must cater within the budget framework.

5.9.6 Contribution of IGUs to Financing Public Universities

Public Universities accrue various benefits from the operations of IGUs. This ranges from financial, technological and social benefits, among others. Financial benefit was ranked at position 1 with 55%. According to the respondents, IGUs have been contributing toward the improving financing of public Universities though to a very little extent as indicated by 50% of the respondents in favor of financial benefit. An analysis between the internally generated funds to finance the University activities indicated that IGUs are financing the university expenditure at only 3%. Computed Coefficient of determination also indicated that the IGFs are only explaining a 37% of the changes in the University expenditure while 63% is explained by other variables. This therefore implies that IGUs are contributing very little towards financing the University expenditure.

The proportion of IGUs share to University budget have been increasing over the years from 2% in the year 2003 to 23% in the year 2012. On average, there was a budgeted 20% contribution of IGUs to the University budget. However, a variance analysis on the budgeted and actual surpluses indicated that the projections have never been met and actually the University could be over-budgeting. This implies that there is need for Public Universities to improve the budgeting system to reflect the reality.

Income generating units of Egerton University have achieved the objective of IGUs contributing to liquidity. This was indicated by the computed contribution of 20% of contribution to liquidity based on the proportion of IGUs' current assets to University's current assets.

Debt ratio of Egerton University and its former Constituent Colleges changed very little from 13.7% to 14.2% despite the inclusion of IGUs data. This implies that IGUs have not contributed to the improvement of debt ratio which was supposed to decrease with the inclusion of IGU data.

5.9.7 Relevancy of IGUs

It can be deduced from the findings that the IGUs undertaken by Egerton University and former Constituent colleges are relevant in addressing financial hardships in the institutions. However they have not been effective as they generate a substantially small amount of surpluses as indicated in the audited financial statements for the ten years from 2003-2012. Documentally evidence also indicated that the declared surpluses did not take into account all the expenditure as personnel emoluments for the staff in IGUs were included in the University expenditure hence the IGUs expenditures are not actual. This implies that the IGUs' surpluses could actually be deficits if all the expenses are included.

5.10 CONCLUSIONS

The study findings do reveal that there has been an improvement on financial performance of public Universities though to a very little extent. However, exclusion of a major expenditure item in terms of personnel emoluments for staff engaged in IGUs makes it difficult to verify their profitability.

The study reveals that there is no clear definition on utilization of funds from IGUs. This has also been witnessed in other Public Universities as evidenced in the study by Matibe 2012 who established that it is difficult to trace the utilization of IGAS funds to specific projects or services. In some of the universities once the funds have been given to the central administration, they are deposited into the same account as the funds gotten from the government and other sources.

Income generating units are contributing positively towards liquidity by 20% as indicated in the study findings. However, contribution to budget cannot be relied on even if it showed a 20% contribution. This was because after a variance analysis, the data on actual surpluses indicated that in all the years except for 2003, there was no compliance with the budget. The variance

analysis indicated an 88% non-compliance. Actual surpluses were far much below the targeted surpluses. IGUs have also not contributed to improving the debt ratio as the ratio remained high at 14.2% from 13.7% even after inclusion of IGUs assets.

5.11 RECOMMENDATIONS

In light of the research findings, this study has suggested the following:

- a) That a policy on the operations of the IGUs be clearly spelt out and communicated to the concerned parties,
- b) The management organs of Public Universities should take radical steps to establish investment companies or a centralized body be established with such functions as advisory, supervisory, co-ordination and appraisal of the IGAs. Egerton University has already considered such option by setting up a firm to oversee operations of its IGUs but is yet to be operational. Laikipia University is also in the process of registering a firm to coordinate its IGUs. Chuka and Kisii are yet to start and it is recommended that they should consider this option and any other University that have not initiated this process of privatizing their IGUs. However, these units should be autonomous and independent and should operate in a private enterprise manner. They should also be manned by efficient and motivated individuals, who are also business oriented. Only this way can Public Universities be able to effectively utilize the available resources and generate wealth to effectively contribute towards their development and reduce overreliance from the Government.
- c) The public universities concerned should carry out a feasibility study to examine the potential profitability of the IGAs before implementing them. Once this is done the universities should go ahead and establish them
- d) IGUs to maintain accurate and complete records for informed decision making.
- e) Strengthening of internal control procedure during project implementation and execution. This will enhance efficiency and accountability enabling the IGUs to meet their objectives.
- f) Public Universities to set clear guidelines on utilization of the internally generated funds. In this regard, Clear rules and policies need to be put in place regarding revenue sharing fit with University priorities. Each income generating opportunity must have concrete timelines, revenue projections, payout models and deliverables.

5.12 RECOMMENDATION FOR FURTHER RESEARCH

The study was aimed at evaluating the contribution of income generating units in financing public Universities. To have an in-depth understanding of IGUs in Public Universities, the following areas are suggested for further research:

- a) A similar study could be carried out in other Public Universities to find out whether the same results will be obtained.
- b) A study can be carried on Public Universities to unfold why IGUs are not financially as expected.

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APPENDICES

Appendix 1:

Letter to Respondent

Egerton University

Nakuru Campus

P.O. Box

NAKURU.

Dear Sir/Madam,

**RE: AN EVALUATION OF THE CONTRIBUTION OF INCOME
GENERATING UNITS IN FINANCING PUBLIC UNIVERSITIES**

I am a student pursuing a Masters Degree in Business Administration at Nakuru Campus of Egerton University. Attached herewith, please find questionnaire for my research work to evaluate the contribution of Income Generating Units to financing public universities in Kenya. A case of Egerton University and former constituent colleges

This is to kindly request you to fill in the questionnaire to enable me conduct this research.

Thank you

Yours sincerely

Samuel M. Murage

CM11/0422/08

APPENDIX 2:

Questionnaire for IGUs Managers and Deans of Faculties

Objective: To evaluate the contribution of Income Generating Units to financing public Universities

Instruction: For each item, tick the score that best represent your opinion

SECTION A: DEMOGRAPHIC INFORMATION

- 1. Please indicate your gender. Male Female
- 2. Please indicate your age
 - 25 – 35
 - 36 - 45
 - 46 and above
- 3. State your workstation
 - Egerton University
 - Laikipia University
 - Kisii University
 - Chuka University
- 4. What position do you hold in employment?
 - Dean
 - Director
 - Manager
 - Others (Specify)

SECTION B: INFORMATION ABOUT THE PROJECTS

- 1. Which among the following Income generating activities do you manage?
 - Module II Programme
 - Research & Consultancy
 - Commercial Ventures (Hotel, Catering, Bookshop)
 - General Production Units (Metal/wood Workshop, Farming)
 - Others (specify).....
- 2. Why did the University start this IGU?
 - For self sufficiency To reduce cost To earn more income

Others (specify).....

3. Who were involved in the decision to allocate funds to this project?
.....

4. Was there a feasibility study that was carried out before the initiation of these projects?

Yes No

5. (a) How was this project financed?

Government grants University sponsorship

Donations Borrowing

Others (specify).....

(b) If borrowed, what was the interest rate

SECTION C: MANAGEMENT OF THE PROJECTS

1. Who are involved in this project management processes?

University Top Management

Middle management

Planning Committee

Others (Specify).....

2. (a) Is there a separate management team for project implementation and operation?

Yes No

(b) If yes, who are the members of the management team?

(c) If no, who manages the project?

3. (a) Is there a separate team to monitor the operations of the project?

Yes No

(b) If yes, who are the members?

(c) If no, who monitors the IGUs Operations?

4. Which of the following tools are applied to Control deviations in cost and revenue?

Budgets commitment register

Standard Cost Others (specify).....

5. What are the major of risks facing IGUs in the University?

Credit risks

Operation risk

Market risks

Students' unrest

Others (specify).....

6. (a) Does the University conduct an analysis on risk and return on these IGUs?

Yes No

(b) If yes, how often does it do the analysis?

Once a Year Twice a Year Thrice a Year None

7. How often does the university carry out an appraisal on these projects?

1yr 2yrs 3yrs

SECTION D: FINANCIAL PERFORMANCE OF THE PROJECTS

1. Is the projects income more than the costs?

Yes No

2. If yes, what do you think are the reasons for the profitability?

Financial resources Availability of market demand for products/services
Proper planning Team work
Low cost of inputs others

3. If no, what are the major reasons for its failure?

Climatic conditions Managerial problems
Financial Problems Competition from private firms
Others (Specify)

SECTION E: UTILIZATION OF THE INTERNALLY GENERATED FUNDS

1. a) Is there a University policy on the distribution of income from IGUs income?

Yes No

b) If yes, what percentage goes to the following line items?

Item	Percentage
University share	
Service providers	
Teaching Materials	
Research function	
Outreach programmes	
Utilities (Rent & Electricity)	
Improvement of Facilities	

SECTION F: CONTRIBUTION OF THE INCOME GENERATING UNITS

1. What are the benefits accruing from these IGU's?

Financial

Social

Technological

Others (Specify)

2. What percentage of the income generated from IGUs goes to financing the University budget?

SECTION F: RELEVANCE OF THE INCOME GENERATING UNITS IN ADDRESSING FINANCIAL HARDSHIPS IN PUBLIC UNIVERSITIES.

1. In your opinion are the approaches used by Egerton University and former constituent Colleges effective in delivering itself from the financial hardship? Yes No

2. (a) Is there a compromise between IGU's and University Co-activities i.e. teaching and research? Yes No

(b) If Yes what would you advice to eliminate the conflict?

3. What recommendations would you make to improve effectiveness of income generation in public universities?

APPENDIX 3

Questionnaire for Finance Officers

Objective: To evaluate the contribution of Income Generating Units to financing public Universities

Instruction: For each item, tick the score that best represent your opinion

SECTION A: DEMOGRAPHIC INFORMATION

1. Please indicate your gender Male Female
2. Please indicate your age
25 – 35 36-45 46 and above
3. State your workstation
Egerton University -Main
Laikipia University
Kisii University
Chuka University

SECTION B: INFORMATION ABOUT THE PROJECTS

1. What are the approaches adopted by the University to generate additional income?
Module II Programmes
Commercial Ventures (Hotels, Bookshops, Petrol stations, Farming etc)
Open and Distance Learning
Research & Consultancy
Others (Specify)
2. Which among the above IGUs contribute most to the financing of the University activities?
3. Why did the University start these IGUs?
For self sufficiency To reduce cost To earn more income
Others (specify).....
4. Who were involved in the decision to invest in these projects?
.....
5. Was there a feasibility study that was carried out before the initiation of these projects?
Yes No

6. (a) How are the University projects financed?
- Government grants University sponsorship
 Donations Borrowing
 Others (specify).....
- (b) If borrowed, what was the interest rate

SECTION C: MANAGEMENT OF THE PROJECTS

1. Who are involved in the projects Management process?
- University Top Management Middle management Planning Committee
 Others (Specify).....
2. (a) Is there a separate management team for project implementation and operation?
- Yes No
- (d) If yes, who are the members of the management team?
- (e) If no, who manages the projects?
3. (a) Is there a separate team to monitor the operations of the IGU's?
- Yes No
- (b) If yes, who are the members?
- (c) If no, who monitors the IGUs Operations?
4. (a) Does the University conduct an analysis on risk and return on these investments?
- Yes No
- (b) If yes, how often does it do the analysis?
- Once a Year Twice a Year Thrice a Year None
5. Are there separate books of Accounts for the projects different from university books?
- Yes No
6. (a) Which people maintain the books of Accounts for the projects?
- Accountants General Clerks
 Accounts Clerks Others (Specify).....
- (b) What is their professional qualification?
- KATC/ACNC CPA Business Diploma
 Business Degree Masters Others (specify).....

7. Which of the following tools are applied to Control deviations in cost and revenue?

Budgets commitment register

Standard Costing Others (Specify).....

8. How often does the university carry out an appraisal on these projects?

1yr 2yrs 3yrs

9. (a) Are there projects started but terminated later? Yes No

(b) If yes, why were they terminated?

SECTION D: FINANCIAL PERFORMANCE OF THE PROJECTS

1. (a) Are these projects profitable?

Yes No

(b) If yes, what do you think are the reasons for the profitability?

Financial resources Availability of market for products

Proper planning Team work

Low cost of inputs others

(c) If no, what are the major reasons for their failure?

Climatic conditions Managerial problems

Financial Problems Competition from private firms

Others (Specify)

2. What is the expected rate of return for these projects?

SECTION E: UTILIZATION OF THE INCOME GENERATED FUNDS

1. a) Is there a University policy on the distribution of income from IGUs income?

Yes No

b) If yes, what percentage goes to the following line items?

Item	Percentage
University share	
Service providers	
Teaching Materials	
Research function	
Outreach programmes	
Utilities (Rent & Electricity)	
Improvement of Facilities	

SECTION F: CONTRIBUTIONS OF THE INCOME GENERATING UNITS

1. What are the benefits accruing from these IGU's?

Financial Social Technological

Others (Specify)

2. a) Has there been an improvement on University financial operations after the establishment of IGUs? Yes No

b) If Yes, to what extent?

Very Little extent	1
Moderate Extent	2
Large Extent	3

3. What percentage of the University budget is financed by income from IGUs?

SECTION F: RELEVANCE OF THE INCOME GENERATING UNITS IN ADDRESSING FINANCIAL HARDSHIPS IN PUBLIC UNIVERSITIES.

1. In your opinion are the approaches used by Egerton University and former constituent Colleges effective in delivering itself from the financial hardship? Yes No

2. (a) Is there a compromise between IGU's and University Co-activities i.e. teaching and research? Yes No

(b) If Yes what would you advice to eliminate the conflict?

3. What recommendations would you make to improve effectiveness of income generating units in public universities?

Appendix 4:
Data Collection Sheet

SECTION A: Financial Performance of the Projects

1. Annual project revenues from 2003 – 2012.

Name of University/Constituent College.....

S/No	Year	Module II Revenue Kshs.	ARC Hotel Revenue Kshs.	Farm Revenue Kshs.	Bookshop Revenue Kshs.	Catering Revenue Kshs.	Total Kshs.
1.	2003						
2.	2004						
3.	2005						
4.	2006						
5.	2007						
6.	2008						
7.	2009						
8.	2010						
9.	2011						
10	2012						

2. Annual project expenditures between 2003 – 2012 in Ksh.

Name of University/Constituent College.....

S/No	Year	Module II Expenditure Kshs.	ARC Hotel Expenditure Kshs.	Farm Expenditure Kshs.	Bookshop Expenditure Kshs.	Catering Expenditure Kshs.	Total Kshs.
1.	2003						
2.	2004						
3.	2005						
4.	2006						
5.	2007						
6.	2008						
7.	2009						
8.	2010						
9.	2011						
10	2012						

SECTION B: BUDGET CONTRIBUTION

University/Constituent College.....

S/No	Year	Total University Budget	Funding from IGUs	% contribution (IGUs)
1.	2003			
2.	2004			
3.	2005			
4.	2006			
5.	2007			
6.	2008			
7.	2009			
8.	2010			
9.	2011			
10	2012			

SECTION C: CONTRIBUTION TO LIQUIDITY

University/Constituent College.....

S/No	Year	University's Current Assets	University's Current Liabilities	Current Ratio = C.A/C.L
1.	2003			
2.	2004			
3.	2005			
4.	2006			
5.	2007			
6.	2008			
7.	2009			
8.	2010			
9.	2011			
10	2012			

SECTION D: CONTRIBUTION TO DEBT RATIO

University/Constituent College.....

S/No	Year	University Total Debts	University's Total Assets	Debt Ratio
1.	2003			
2.	2004			
3.	2005			
4.	2006			
5.	2007			
6.	2008			
7.	2009			
8.	2010			
9.	2011			
10	2012			

Appendix 5:
Letter of Research Authorization

**EGERTON
NAKURU TOWN**

Tel: (051) 215648/215798
Fax: (051) 62527
E-mail: ntc@egerton.ac.ke



**UNIVERSITY
CAMPUS COLLEGE**

P. O. Box 13357
Nakuru

**OFFICE OF THE DEAN
FACULTY OF COMMERCE**

04th March, 2014

TO WHOM IT MAY CONCERN

RE: RESEARCH UNDERTAKING – SAMUEL MWANGI MURAGE – CM11/0422/08

This is to certify that the above named person is a bona fide student of Egerton University undertaking Masters in Business Administration programme offered at Nakuru Town Campus College. He has passed all the coursework examinations and the research proposal for the partial fulfilment of the requirement of the degree. The title of his research is *"An Evaluation of the contribution of In-come Generating Units in Financing Public Universities: ". A case of Egerton University and Former Constituent Colleges.*

The purpose of this letter is to request you to allow him to collect data from your organization.

This information and data thus given will only be for research purposes and will be treated with Utmost confidentiality.

Any assistance accorded to him will be highly appreciated.


Mr. PAC Kapsoot
DEAN, FACULTY OF COMMERCE



*Transforming Lives Through Quality Education
Egerton University is ISO 9001: 2008 Certified*