

EFFECTIVENESS OF THE INTERNAL CONTROL SYSTEM IN MANAGEMENT  
OF FINANCES IN PUBLIC UNIVERSITIES IN KENYA: A CASE OF EGERTON  
UNIVERSITY

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A RESEARCH PROJECT SUBMITTED TO THE GRADUATE SCHOOL IN  
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE  
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UNIVERSITY.

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**DECLARATION**

I, Esther Chepkorir Rono, hereby do make a declaration that this research is my original work and has not been carried out by any other person or presented for an award of a degree in any University.

Esther Chepkorir Rono

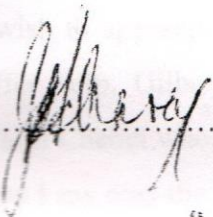
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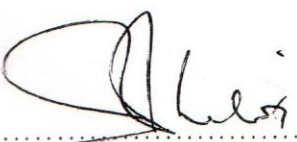
**APPROVAL**

This research project has been submitted with our approval as University supervisors.

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To all of you I say may the Almighty God bless you abundantly.

## DEDICATION.

To my sons Wesley, Gilbert and Andrew and daughter Faith.



## ABSTRACT.

This study was aimed at establishing the effectiveness of the internal control system in the management of finances in public universities in Kenya. It sought to evaluate the existing internal control systems in the public universities, and especially in Egerton University. It also sought to determine whether there was a significant difference in the evaluation of the effectiveness of the internal control system in financial management between the academic and non-academic departments in Egerton University. Egerton University was taken as a case study from where all samples for study were drawn. The study used only primary data which was obtained using a closed ended questionnaire which was administered to respondents. The data was tested using the Likert Scale. A high score indicated the existence of a strong internal control system leading to an efficient financial management system. A low score indicated the existence of a weak internal control system while a mid-score will indicate that the internal controls have no impact in financial management. The overall score percentage was 81 indicating that the University's internal controls were highly effective in the management of finances. The second hypothesis that there was no significant difference in the evaluation of the level of the effectiveness of the internal control systems in Egerton University was tested using a T-test comparing the evaluation of the level of effectiveness of the internal controls by category of departments. This test led to the conclusion that the evaluation of the effectiveness of the internal control systems in the University depended on the category of the department. The results were corroborated by the one-sample chi-square test.

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## ABBREVIATIONS AND ACRONYMS

LPO	Local Purchase Order
PC	University's Procurement Committee
DVC(A&F)	Deputy Vice Chancellor (Administration and Finance)
PCA	Pay Change Advice
R(A)	Registrar (Administration)
SSO	Senior Supplies Officer
IGU	Income Generation Unit
SAS	Statement of Auditing Standards
CEO	Chief Executive Officer
IFRSs	International Financial Reporting Standards
IIARF	Institute of Internal Auditors Research Foundation.
IIA	Institute of Internal Auditors
ICPA(K)	Institute of Certified Public Accountants (Kenya).
IASB	International Accounting Standards Board.
AICPA	American Institute of Certified Public Accountants.
GAAP	Generally Accepted Accounting Principles.



## CHAPTER ONE: INTRODUCTION.

### 1.1 Background to the Study.

Organizations set objectives and goals to achieve in a given period. In order to meet these objectives and goals, they require resources. The resources are scarce calling for the need for management to device, establish and supervise the implementation of internal controls through which resources will be allocated and utilized effectively and efficiently (Esmailjee, 1993).

#### 1.1.1 Elements of internal control.

An entity's internal control system consists of the policies and procedures established to provide reasonable assurance that specific entity objectives will be achieved. Great importance has been placed on internal control by management and independent auditors. The internal control system consists of three elements. The first element is the control environment which comprises management philosophy and operating style, organizational structure, board of directors, methods of assigning authority and responsibility, management control methods, internal auditing, personnel policies and practices and external influences. The second element of internal control system is the Accounting systems. An effective accounting system should identify and record all valid transactions, describe on a timely basis the transactions in sufficient detail to permit proper classification of transactions for financial reporting, measure the value of transactions in a manner that permits recording their proper monetary value in the financial statements, determine the period in which transactions occurred to permit recording transactions in the proper accounting period, and present properly the transactions and related disclosures in the financial statements. The third element of internal control system is control procedures. Control procedures may be classified into proper authorization, segregation of duties, documents and records, access controls, and independent checks (Kell and Boynton, 1992).

### **1.1.2 Auditing as an internal control.**

Auditing services are used extensively by businesses, government, and other non profit organizations. To do an audit, there must be information in a verifiable form and some standards by which the auditor can evaluate the information. Auditors routinely perform audits of quantifiable information, including companies' financial statements and individuals' income tax returns. Auditors also perform audits of more subjective information, such as the effectiveness of computer systems and the efficiency of manufacturing operations. An audit of the financial statements is done to determine whether the overall financial statements are stated in accordance with specified criteria. An operational audit is a review of any part of an organization's operating procedures and methods for the purpose of evaluating efficiency and effectiveness. The purpose of a compliance audit is to determine whether the auditee is following specific procedures, rules or regulations set down by some higher authority ( Arens and Loebbecke, 1997).

### **1.1.3 The role of External Auditors in the evaluation of internal controls.**

The Controller and Auditor General is one among the external auditors who audit the government institutions. The constitution gives other duties of the Controller and Auditor General as examining disbursements of monies appropriated by Parliament to ensure that they have been applied for the purposes to which they were appropriated and that expenditures conform to the authorities that govern them (G. O. K., 1964). The Controller and Auditor General also does auditing and reporting on the public accounts of the Government of Kenya. The constitution requires the Controller and Auditor General to report to Parliament at least once every year on the public accounts of the government. Important audit findings arising from audits carried out during the year, including the financial statements, are reported to the ministries through management letters issued immediately after the audit work is completed.

Certified Public Accounting firms are external audit firms which perform audits of the published historical financial statements of companies, businesses, and non-commercial



organizations including income tax returns for individuals among other audit assignments. The firms can audit the government institutions. ( Arens and Loebbecke, 1997).

#### **1.1.4 The role of Internal Auditors in the evaluation of the internal controls.**

Internal auditing assists management in monitoring the effectiveness of other control policies and procedures (Kell and Boynton 1992). Internal auditor's responsibilities vary considerably, depending upon the employer. Some audit sections consist of few employees who may spend most of their time doing routine compliance auditing. Other internal audit sections consist of numerous employees who have diverse responsibilities, including many outside the accounting area. Because internal auditors spend all their time with one company, their knowledge about the company's operations and internal controls is much greater than the external auditor's knowledge( Arens and Loebbecke, 1997)

#### **1.1.5 Audit sampling.**

Auditors need not perform an audit of all transactions in an organization but can examine a sample of the transaction to determine the extent of the reliance that can be placed in the records. In contemporary auditing, sampling is well established. Audit sampling is the application of an audit procedure to less than 100% of the items within an account balance or class of transactions for the purpose of evaluating some characteristics of the balance or class (Kell and Boynton, 1992).

#### **1.1.6 Internal control systems of Egerton University.**

The internal control systems of Egerton University are contained in the Egerton University Act, (1987), The University Calender, Egerton University Financial Regulations, (1998) the Collective Bargaining Agreement, the Staff Terms and Conditions of Service documents and other government circulars which may be issued from time to time. The procurement procedures are as stipulated in the Public

Procurement and disposal Act, (2005) applicable to all public institutions in Kenya and the Egerton University Tendering, Procurement Regulations, (1998).

## **1.2 The statement of the problem.**

Public Universities in Kenya draw funding from the government and are required to account for the funds to the government. Whereas the funds are expended continuously throughout the year, the Controller and Auditor General can carry out an audit only once at year end. Given the staff establishment strength at the Kenya Audit office and the large number of transactions in each of the public institutions, the Controller and Auditor General can only examine the accounts on a sample basis. This has exerted a high pressure on all organizations, both public and private, to integrate proactive measures in internal control procedures in order to enhance accountability. Internal controls therefore remain as the only way that public organizations can ensure accuracy and reliability of their financial transactions. Despite the importance of internal controls, limited studies have been conducted to evaluate their effectiveness in management of finances. This study intends to fill the gap by evaluating the effectiveness of internal controls in public universities in Kenya.

## **1.3 Objectives of the Study**

The general objective of the study was to establish the effectiveness of the internal control system in management of finances in public universities in Kenya.

The specific objectives are:

- i) To evaluate the effectiveness of the existing internal control systems in public universities.
- ii) To determine whether there is any significant difference in the evaluation of the level of effectiveness of the internal control systems between academic and non-academic departments in Egerton University.



#### **1.4 Research Hypothesis.**

- i) The internal control systems in public universities in Kenya are not effective.
- ii) There is no significant difference in the evaluation of the level of effectiveness of the internal control systems between academic and non-academic departments in Egerton University.

#### **1.5 Justification/significance of the study.**

This study evaluated the level of effectiveness of the internal control systems in Egerton University. The outcome of this study will be useful to public institutions in assessing the extent of the awareness by their staff of the existing internal controls, the adequacy of their internal control system and the extent of their compliance in order to incorporate measures in their planning to ensure internal control systems are understood by all staff and that they contribute towards improved management of finances.

#### **1.6 Scope and Limitations of the study.**

Egerton University was used as a case study for the reason that it is one of the oldest institutions of higher education in Kenya and that it can be said to be a fair representation of the public universities in Kenya.

One of the major limitations of this study was financial constraint. Despite this limitation, the ease and availability of data at Egerton University, which was close to the researcher's place of study, made the study more exhaustive.

#### **1.7 Assumptions of the study.**

This study was carried out on the assumption that the respondents were aware of all the existing internal controls and that they would give objective responses to each of the indicators of internal controls in the questionnaire.



## **1.8 Definition of terms.**

### **Buyer**

A member of staff in purchasing department who is charge of processing purchases for a selected number of items.

### **Audit Committee**

A committee of the University Council which oversees the design, implementation, monitoring and review of the internal control system of an organization and the activities of auditors, both internal and external.

### **Commitment of Funds**

Setting apart the estimated cost of an item from the budget allocation at the initiation of an expenditure transaction but before the actual payment is made.

### **Board of Survey**

A committee in charge of monitoring and disposal of damaged, obsolete or excess inventory and assets.

### **Pre-qualified suppliers**

Suppliers who have been assessed through having them complete a questionnaire, visiting their premises to establish their physical existence and examining their registration and other documents to establish the relevance and adequacy of their products and services to the organization carrying out the assessment, and the suppliers' compliance to government regulations.

## Internal Control system

All the policies and procedures (internal controls) adopted by the directors and management of an entity to assist in achieving their objective of ensuring, as far as practicable, the orderly and efficient conduct of its business, including adherence to internal policies, the safeguarding of assets, the prevention and detection of fraud and error, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information' (SAS 300).

## CHAPTER TWO: LITERATURE REVIEW.

### 2.1 Evolution of Internal Controls.

As far back as 4000 B. C., historians believe, formal record-keeping systems were first instituted by organized businesses and governments in the Near East to allay their concerns about correctly accounting for receipts and disbursements and collecting taxes. Similar developments occurred with respect to the Zhao dynasty in China (1122-256 BC). The need for and indications of audits can be traced back to public finance systems in Babylonia, Greece, the Roman Empire, the City States of Italy, etc., all of which developed a detailed system of checks and counterchecks. Specifically, these governments were worried about incompetent officials prone to making bookkeeping errors and inaccuracies as well as corrupt officials who were motivated to perpetuate fraud whenever the opportunity arose (Institute of Internal Auditors, 2003).

### 2.2 The internal control environment.

An internal control environment comprises management organization, roles and responsibilities, management's risk assessment, and management's monitoring of the system. It encompasses the overall attitudes, abilities, awareness and actions of the personnel of an entity, and particularly those of its management, concerning the importance of control and the emphasis attached to it. The key elements of the internal control environment are the effectiveness of the organization structure, the role of the board of directors and key management. It includes the role of the audit committee and internal audit, the reasonableness of management plans and budgets, the relevance and reliability of management information. Other elements of internal control environment are the reliability of management estimates, the existence of adequate policies and procedures for controlling the business and the effectiveness of management control over computer operations. Accounting systems comprise the financially significant computer applications and the computer environment(s) in which these are developed, implemented, maintained and operated. These systems will form the basis for the



preparation of periodic financial statements and other information required by management to control the business. They consist of a series of procedures for recording, processing and controlling transactions and for recording resources and their use. Internal accounting controls are the specific procedures established by management to ensure, as far as possible, that transactions are completely and accurately processed and are recorded in accordance with management's authorization and that assets are safeguarded, the accounting systems are reliable and the account balances are correct ( Walters and Dunn, 2000).

### **2.3 Relationship between Internal and external auditing.**

The Statement of Responsibilities of Internal Auditing issued by the Institute of Internal Auditors (IIA) defines internal auditing as ' an independent appraisal function established within an organization to examine and evaluate its activities as a service to the organization'. Several parts of this definition merit comment: 'Internal' indicates that the auditing is carried on within an organization by employees of the organization. 'Independent appraisal function' makes it clear that there are no limitations or restrictions on the auditor's judgment. 'Established' states that the entity has specifically authorized the creation of an internal audit function. 'Examine and evaluate' describe the nature of internal auditing as first, a search for facts, and second, a subjective process of evaluating the results. 'Activities' implies that all of an organization's activities fall within the scope of internal auditing. 'Service to the organization' indicates that internal auditing exists to aid or benefit the entire organization ( Kell and Boynton, 1992).

There is usually a close relationship between internal auditors and an entity's outside independent auditors. The work of internal auditors may be a supplement to, but not a substitute for, the work of independent auditors in a financial statement audit. One of the responsibilities of the head of internal auditing is to coordinate the work of internal auditors with the work of external auditors ( Kell and Boynton 1992).

The external auditor's operations are governed by the International Accounting Standards Board (IASB). The IASB is committed to developing, in the public interest, a single set

of high quality, global accounting standards that require transparent and comparable information in general purpose financial statements. In pursuit of this objective, the IASB cooperates with national accounting standard-setters to achieve convergence in accounting standards around the world (Accounting Standards Board, 2006).

#### **2.4 Limitations to auditing.**

A financial statement audit is subject to a number of inherent limitations. One constraint is that the auditor works within fairly restrictive economic limits like time, cost and human resource. To be useful, the audit must be made at a reasonable cost and within a reasonable length of time. The limitation on cost results in selective testing, or sampling, of the accounting records and supporting data. The auditor's report on the financial statements is usually issued within three months of the balance sheet date. This time constraint may affect the amount of evidence that can be obtained concerning the events and transactions after the balance sheet date that may have an effect on the financial statements. Despite the limitations, a financial statement audit adds credibility to the financial statements. (Kell and Boynton, 1992).

In spite of the availability of different types of controls there have been numerous incidences of fraud and errors in private and public enterprises all over the world. This raises the question as to whether the internal controls in the organizations are sufficient and if they are sufficient, whether there are continuous reviews to establish their efficiency and effectiveness ( Esmailjee, 1993).



## **2.5 Empirical research: The auditor and internal controls.**

The concept of internal controls has received considerable attention from researchers. The researchers have tended to focus on aspects of control that relate to performance reporting, organization structure, behaviour and external auditor's work (Ismailjee 1993).

Haylas and Ashton (1982) in their efforts to provide evidence on the effectiveness of particular audit techniques in detecting errors that affect the financial statements and on the causes of such errors conducted a study of 281 errors requiring financial statements adjustments. The results of the study suggested that all of the intentional errors are concentrated in relatively few audit areas and that these areas are fairly predictable by industry. The great majority of such errors affect income but the direction of the effect may either be an understatement or overstatement. Regarding signaling of an error, they found that a large portion of financial statement errors are initially signaled by less rigorous audit procedures such as analytical review and discussions with clients. Client personal problems such as inexperience, incompetence and insufficient knowledge and inadequate control, follow up or review were found instrumental in causing more errors.

In an attempt to define a client's control environment from the auditor's perception, Haskins (1987) identified 48 client control attributes and their perceived levels of importance in adequately describing a client's control environment thus serving to define more clearly audit planning concepts. Audit firms, firm's specialization and audit rank were found to be significant mediating contextual variables and that seniors had the largest share of the evaluation of internal control attributes responsibility.

Another study examined the effectiveness of internal audit and external audit in deterring financial reporting irregularities. Schneider and Wilners (1990) conducted an experimental study that examined the effects of managers' perception of internal and external auditing on the potential of financial irregularities. A total of 264 subjects, the majority of whom were experienced managers were required to make decisions on three cases involving materiality type of irregularity, perceived extent of Generally Accepted

Accounting Standards (GAAP) violation and incentives for misstating income. The decision were made in a situation where there was no auditing at all, only internal auditing or external auditing.

The results clearly supported internal and external auditing as deterrents to financial reporting irregularities when all of the four factors were present. It was also found that internal auditing effects were similar to those of external auditing. The study, however, suffered from the inability to explain why the existence of audits were perceived as having deterrent effects (Schneider and Wilners, 1990).

Salih (1983) evaluated the internal controls of Ethiopian Airlines, Nairobi Branch Office and concluded that lack of segregation of accounting and custodian functions was the greatest weakness of the Branch Office. He argued that there is need to centralize cash receipts, establish an internal audit unit, separate duties of purchase activities, establish perpetual inventory system for tickets.

Ismailjee (1993) evaluated the internal controls of the Nyayo Bus Service Corporation, Nairobi and concluded that the analysis conducted on the cash receipts as well as the cash disbursements and the purchases cycle areas bore fairly strong controls. He attributed this largely to the fact that the government accounting system was still in operation in those areas. He however found weaknesses in the organization chart, payroll and the stores accounting system.

## **2.6 Conceptual Framework.**

In order to achieve their objectives, institutions carry out many activities. Staff are recruited to carry out the activities such as purchase or sale of items, receipts, payment for purchases and services and staff remuneration, keep custody of assets and recording the transactions. For efficiency in carrying out the activities, institutions require to put in place internal controls. An organization structure should define and allocate responsibility, authority and define lines of reporting. Adequate segregation of duties will



ensure separation of duties to enhance accountability. Proper authorization or approval of all transactions will check against unauthorized transactions. Physical control over assets will protect the assets against theft and unauthorized uses. Adequate control over documents and records and accounting accuracy will guard against fraudulent use of accountable documents like receipts and local purchase orders and ensure a complete and accurate record of all transactions. All these controls can be enhanced by use of quality personnel.

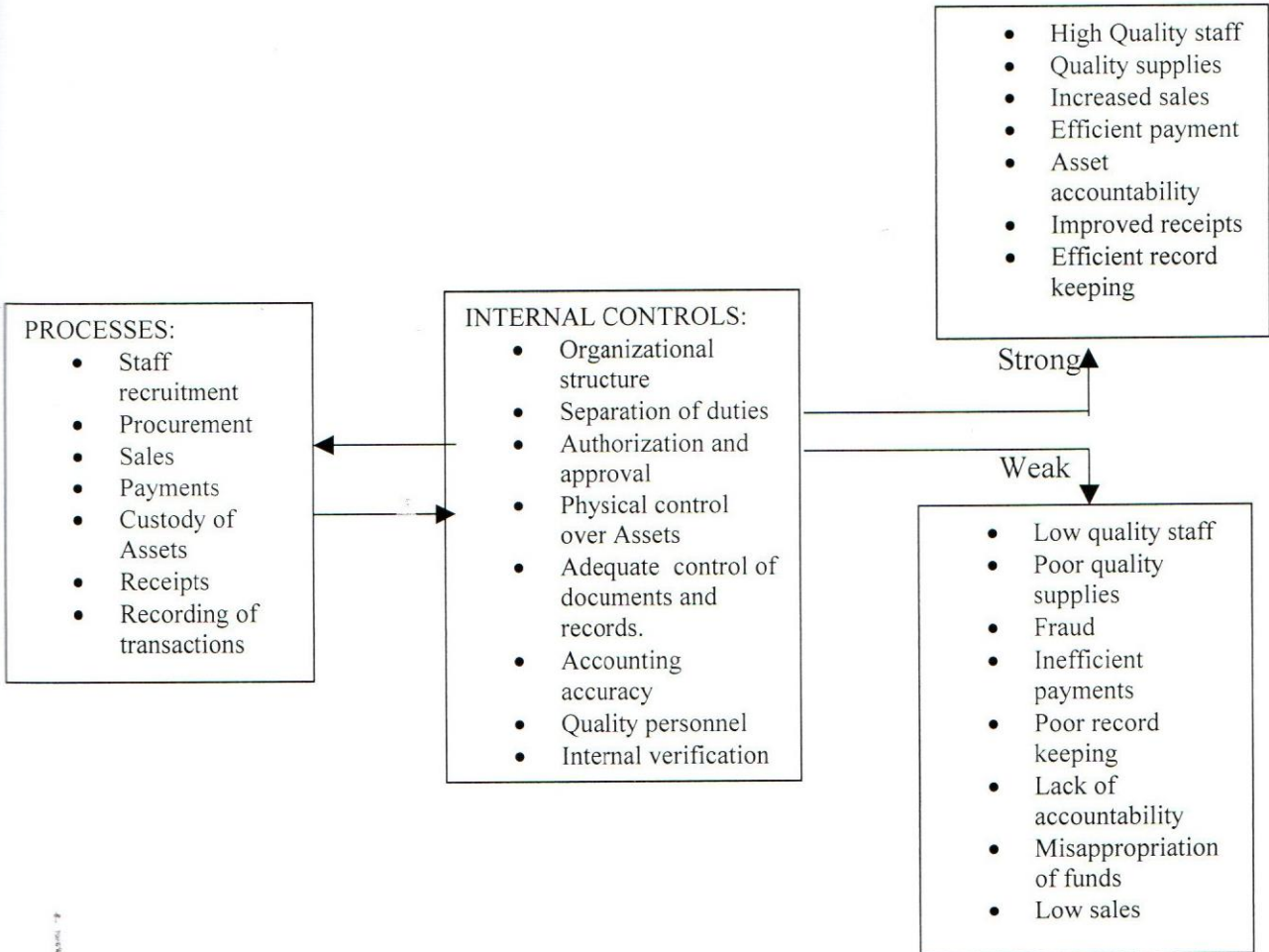
The effectiveness of an institution's financial management depends on the strength of its internal controls. Strong internal controls will lead to the recruitment of high quality staff, purchase and timely delivery of quality items, increased sales and cash receipts, an efficient payments system leading to supplier and staff satisfaction, proper safeguarding of assets and complete and accurate recording system. On the other hand, a weak internal control system will lead to recruitment of low quality staff, delayed delivery of poor quality supplies, inefficient receipts and payments system, poor and unreliable record keeping, lack of accountability, misappropriation of funds, and reduced sales.

**Graph 1 Conceptual Framework.**

INDEPENDENT  
VARIABLE

INTERVENING  
VARIABLE

DEPENDENT  
VARIABLE



Source: Self (2006)

## **CHAPTER THREE: RESEARCH METHODOLOGY.**

### **3.1 Location and Population of the study.**

For the purpose of this study, Egerton University was chosen as a case study. The reason for choosing this sample was due to ease in contacting respondents to fill the questionnaire.

### **3.2 Sampling procedure.**

The non-probability sampling method was used to select a sample of 34 respondents made up of staff heading the non-academic departments and sections involved in regulating the internal control system and all the chairmen/ chairpersons of academic departments.

### **3.3 Data collection method and instruments.**

Primary data was collected using a closed-ended questionnaire which was personally administered to respondents on a drop and pick basis. The respondents were required to indicate how often the internal controls were applied. There were eight parts to the questionnaire which were designed to set out the internal controls applied in each of the sections that carry out the financial processes. These were internal controls relating to debtors records; custody of cash and accountable documents; procurement of goods, services and works; receiving and storage of items at the Central Stores; supplier's records and payment for goods, services and works. Other parts set out the procedures for control over staff recruitment and payment of wages and salaries; budgetary control; custody and disposal of assets.



### **3.4 Data analysis methods.**

The first hypothesis was tested by analyzing the responses collected through the questionnaires using the Likerts scale. A high score indicated the presence of a highly effective internal control system leading effective financial management. A low score indicated the presence of a less effective internal control system, while a mid-score indicated a moderately effective internal control system.

The second hypothesis which stated that 'there is no significant difference in the evaluation of the level of effectiveness of the internal control systems between academic and non-academic departments in Egerton University' was tested using the t-test to test the level of effectiveness of the internal control system by category of department. To corroborate the results of the t-test, the chi-square test was used.

## **CHAPTER FOUR: FINDINGS AND DISCUSSIONS.**

### **4.1 General Findings**

The first objective of this study sought to evaluate the effectiveness of the existing internal control systems in Egerton University. To effectively evaluate the level of effectiveness of the existing internal control systems in Egerton University, eight dimensions of control systems regulating operations in a university were considered. The dimensions were: staff recruitment and payment of wages and salaries; debtors records; procurement of goods, services and works; receiving and storage of items in the central stores; suppliers' records and payment for goods, services and works; custody of cash and accountable documents; budgetary control; and custody and disposal of assets. The eight dimensions together determine the overall internal control systems in a properly managed financial system in a university. This study therefore examined the influence of each of these dimensions separately and cumulatively as the overall internal control systems of financial system of Egerton University. The overall score was later coded into three ordinal categories in order to differentiate between the levels of effectiveness of the internal control system as assessed by the respondents. This included a score of 0.0- 0.33 meaning less effective, a score of 0.34-0.66 meaning moderately effective and a score of 0.67-1 meaning highly effective.

#### **4.1.1 Staff recruitment and payment of wages and salaries**

The level of effectiveness of the internal control systems governing staff recruitment and payment of wages and salaries was evaluated on a four-point likert scale (1 for Not at All, 2 for Not Aware, 3 for Sometimes, and 4 for All the Time) using 22 indicators relating to personnel management in the university. The sample respondents were requested to indicate their individual evaluation of the level of effectiveness of each indicator. The details of their responses are tabulated on Appendix 3 (i). Table 1 below depicts the total score, percentage and the ranking of the internal controls indicators.

Table 1: Internal controls relating to Staff recruitment and payment of wages and salaries

Indicators	Response		
	Total raw score	Percentage score	Rank
1 Staff in computer section have no access to the PCAs in the salaries section	49	61	22
2 A senior accountant confirms mathematical accuracy of the payroll schedule before authorizing for cheques to be raised	55	69	21
3 The clerk makes a monthly wages summary at the end of the month for each casual worker showing the details of the worker, number of hours worked, applicable hourly rate, and wages payable	58	73	20
4 A daily work record is maintained by the supervisor for each causal worker	61	89	19
5 Personnel section checks the request by departments against the organization structures	62	78	18
6 Staff from other sections have no access to the computer section	62	78	17
7 Personnel section check the printout of changes to the payroll against the PCA issued for the month	63	79	16
8 R(A) signs the letter of authority for department to hire casual workers	64	80	15
9 Short-listing is done by a panel made up of personnel, the respective department and a	65	81	14



	representative from the senate			
10	A committee under the R(A) deliberates on department's requests to hire casual workers and approves, rejects or amends the request	65	81	13
11	The clerk enters the details of the hours worked, as recorded on the daily work records, on the muster roll	67	84	12
12	Job advertisement made for any vacant position to be filled	68	85	11
13	Changes to the payroll are made on the strength of a PCA only	68	85	10
14	The monthly wages summary is approved by the head of the department	69	86	9
15	Personnel section issues a schedule for new rates of pay for annual increments and any pay changes affecting all employees	70	88	8
16	Departments make written requests to DVC (A & F) for additional employees	71	89	7
17	Interviews are conducted by a panel chaired by the Chairman of the University Council for academic and senior administrative staff and DVC (A & F) for all other categories	71	89	6
18	Salaries section check the workings on the monthly wages summary	71	89	5
19	Wages are paid at the cash office with the assistance of the supervisor	71	89	4
20	Letters of appointment are signed by the registrar administration – R(A)	72	90	3
21	Personnel records are maintained showing their terms and conditions of services	73	91	2

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22	Personnel section raise PCAs to finance department for new employees showing effective date of payment, rate of the basic pay and other allowances and for change of pay on promotion, retirement or dismissal	76	95	1
Total score		1461		

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N = 20

Source: Research findings, 2006.

From Table 1 above, there was an overall score of 1,461 which works out to 0.83 out of a possible maximum score of 1,760. The results indicate that more respondents reported that the internal controls relating to staff recruitment and payment of wages and salaries were highly effective.

The responses to each constituent item were scored on a scale of 1, indicating least level of effectiveness, to 4, indicating highest level of effectiveness. The individual item scores were added up to form an overall effectiveness score for each respondent. The respondents' overall score varied between 440, indicating the least overall level of effectiveness, and 1760, indicating the highest overall level of effectiveness. The higher the overall score, the more effective was the internal control system of staff recruitment and payment of wages and salaries, and vice versa.

Among the indicators of effective internal controls relating to personnel management were the segregation of duties. The policy on recruitment and selection of employees was seen as transparent. Requests to fill job vacancies emanated from the departments and were checked in Personnel Department before approval by the Deputy Vice Chancellor in charge of Administration and Finance. Recruitment was then done through advertisement in at least three widely read daily newspapers and selection by a representative panel. Requests for recruitment of staff on contract or temporary employment and casual workers did not follow a similar procedure as it was not found economical to go through



the elaborate recruitment and selection process for staff who would hold office for short periods. The responses further indicated that there was segregation of duties in payment of salaries and wages. Personnel Department raised pay change advices to Finance Department for payment. The processed changes were checked in personnel before the final payroll was produced against which finance department drew cheques to pay the salaries. A further internal control was that no staff was paid salary by cash but all salaries were paid to the bank accounts. Payment of wages for casual workers had its controls of approval and segregation of duties. The clerk in charge prepared a monthly wages summary which was approved by the Head of Department before it was paid by Finance Department. Most of the controls were negotiated between the university and the respective staff trade union who also monitored their implementation and hence enhanced the internal controls. There were other indicators which pointed towards a moderately effective system. One was that there was little restriction of access to payroll input documents in salaries section and that confirmation of the mathematical accuracy of the payroll schedules by a senior management member of staff was sometimes not done.

#### **4.1.2 Debtors' records**

The level of effectiveness of the internal control systems governing debtors' records was also evaluated on a four-point likert scale (1 for Not at All, 2 for Not Aware, 3 for Sometimes, and 4 for All the Time) using 35 indicators relating to debtors' records in the university. The sample respondents were requested to indicate their individual evaluation of the level of effectiveness of each indicator. Appendix 3 (ii) gives the details of the responses to each of the indicators. Table 2 depicts the total score from the respondents and their ranking in percentages.

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Table 2: Internal controls relating to debtors' records

	Indicators	Response		
		Total raw score	Percentage score	Rank
1	Imprest is surrendered within 48 hours of the completion of the activity for which it was taken.	27	34	35
2	Follow up of debts is done by IGU department	46	58	34
3	Staff get salary advance up to a maximum of three times in a calendar year.	47	59	33
4	Staff from other departments have no access to debtors section	48	60	32
5	A salary advance is charged interest at the commercial bank rates	48	60	31
6	All collections from the credit sales are collected thirty days after the invoice date	50	63	30
7	A goods inwards returns note is maintained for the goods returned by customers	50	63	29
8	Imprest which is not surrendered by the 10 <sup>th</sup> of the following month is recovered from the salary of the month	51	64	28
9	Students pay fees in full at the beginning of the semester	53	66	27
10	A debtors ledger is maintained in IGU department	53	66	26

11	A salary advance is recovered in three monthly installments starting from the month that it is advanced or the following month if the advance is taken after the payroll entries have been closed	54	68	25
12	The imprest forms for the staff who have not surrendered previous imprests are returned to the applicant	56	70	24
13	A register of goods returned is maintained to support the short-credit invoice	56	70	23
14	A normal salary advance is up to a maximum of one month's salary net of statutory deductions	57	71	22
15	Items for sale on credit are authorized by the farm manger or head of department against the request document by the credit customers	57	71	21
16	Sales on credit are given only to customers who have been assessed and found to be creditworthy	60	75	20
17	Staff members fill salary advance forms before they can get salary advance	62	78	19
18	Debtors section record the salary advance as a debtor	62	78	18
19	The delivery note is signed by the farm manager or head of department	62	78	17

20	The invoice is signed by the farm manager or head of department	63	79	16
21	Imprest forms for expenditures whose votes are exhausted are returned to the respective departments	64	80	15
22	The imprest form is checked at the debtors section to confirm all previous imprest have been surrendered and record the transaction	64	80	14
23	The salary advance form is checked in salaries section to avoid over-commitment of the salary	64	80	13
24	The salary advance form is authorised by DVC (A & F)	64	80	12
25	A delivery note is raised for every credit sale	64	80	11
26	An invoice is raised for every delivery note	66	83	10
27	Salaries section records the salary advance for recovery	68	85	9
28	Students deposit fees in the university bank account and submit the deposit slip to cash office for issuance of the receipt	73	91	8
29	The imprest form is approved by the dean in case of academic faculties or the DVC for non-academic departments	74	93	7
30	A pay change advice is raised in	76	95	6



	personnel department			
31	Tuition fees and accommodation charges are received against the letter of admission	76	95	5
32	A students ledger is maintained in a computer programme	76	95	4
33	The imprest is committed at vote-book section to accumulate the expenditure on the vote and to indicate availability of funds	78	98	3
34	The imprest form is signed by the chairman of the department to authorize expenditure from the department's vote	79	99	2
35	Staff apply for imprest by filling the imprest form	80	100	1
	Total score	2128		

N = 20

Source: Research findings, 2006.

From Table 2 above, the overall score out of the 20 respondents to the 35 indicators to the internal controls relating to information on debtors' records was 2,128 which was 0.76 out of a possible maximum score of 2,800.

The responses to each constituent item were scored on a scale of 1, indicating least level of effectiveness, to 4, indicating highest level of effectiveness. The individual item scores were added up to form an overall effectiveness score for each respondent. The respondents' overall score varied between 700, indicating the least overall level of effectiveness, and 2800, indicating the highest overall level of effectiveness. The higher the overall score, the more effective is the internal control system of information on debtors' records, and vice versa. The overall score was later coded into three ordinal

categories in order to differentiate between the levels of effectiveness of the internal control system as assessed by the respondents.

The responses to each constituent item were scored on a scale of 1, indicating least level of effectiveness, to 4, indicating highest level of effectiveness. The individual item scores were added up to form an overall effectiveness score for each respondent. The respondents' overall score varied between 35, indicating the least overall level of effectiveness, and 140, indicating the highest overall level of effectiveness. The higher the overall score, the more effective is the internal control system of information on debtors' records, and vice versa.

The responses generally indicated that the internal control systems governing information on debtors' records were highly effective. Debtors were of imprests, student's fees and credit sales. The deposit of fees by students directly to the University's bank accounts rather than pay cash and the maintenance of a students fees ledger were indicators of a highly effective internal control system. The indicators of highly effective internal controls systems relating to information on debtors records were the approval procedures of imprest. The imprest warrant form clearly indicated the approval procedures for application and surrender of imprest taken by staff who drew subsistence allowances while traveling outside their work station on official duty or to make payment in advance. It was indicated that all imprests were applied using a standard accountable document, the imprest warrant, and was approved by the chairman of department to authorize expenditure out of the department's vote, the imprest was checked for availability of funds and committed at vote book and authorized by the deputy vice chancellor to authorize payment of cash. The strength of internal controls relating to debtors on credit sales was that customers were rated on their creditworthiness before credit could be extended to them.

There were indicators of a moderately effective system. These were that imprest was not surrendered within the stipulated forty eight hours after completion of the activity for which it was taken neither did recovery of unsurrendered imprest commence the



following month. Another pointer to a moderately effective internal control system was slow debt collection and easy access to debtors records by staff from other departments and that some students did not pay fees in full at the beginning of the semester.

#### 4.1.3 Procurement of Goods, Services and Works

The level of effectiveness of the internal control systems governing procurement of goods, services and works was evaluated on a four-point likert scale (1 for Not at All, 2 for Not Aware, 3 for Sometimes, and 4 for All the Time) using 25 indicators relating to procurement in the university. The sample respondents were requested to indicate their individual evaluation of the level of effectiveness of each indicators. Appendix 3 ( iii) is a tabulation of the individual responses. Table 3 depicts the overall score and percentage of their responses.

Table 3: Internal controls relating to Procurement of Goods, Services and Works

Indicators	Response		
	Total raw score	Percentage score	Ranking
1 Quotations forms are opened by the buyer of the particular item in the presence of an auditor	49	61	25
2 All purchases are made by the purchasing department	57	71	24
3 Purchasing department consults the user department to identify possible suppliers	58	73	23
4 The user department recommends a supplier and signs against the recommendations on the Quotation Analysis Form	58	73	22



5	The quotation forms are recorded in a quotation register and sent to the supplier with instructions to deliver the quotations to the purchasing department	62	78	21
6	Each quotation form is allocated a serial number referenced to the quotations register	62	78	20
7	The quotations are analyzed by the buyer in a Quotations Analysis Form.	62	78	19
8	The duplicate blue copy of the LPO is sent to the creditors section to wait payment	64	80	18
9	The Senior Supplies Officer is the first signatory of the LPO	65	81	17
10	Purchasing department issues quotations to at least three suppliers recommended by the user department	65	81	16
11	Purchases are made following the procedure laid out in the Public Procurement and Disposal Act, 2005	68	85	15
12	Most purchases are made from the suppliers on the Tender Book	68	85	14
13	DVC (A & F) signs the LPO to authorize the purchase	68	85	13
14	Quotations are obtained from at least three of the pre-qualified suppliers for the purchase of items on quotations	70	88	12
15	The original white copy of the LPO is delivered to the supplier	70	88	11
16	The triplicate green receiving copy of the LPO is sent to the Central Stores to await delivery of items	70	88	10

17	Use department raises requisition, indicating specifications, the suppliers and prices	71	89	9
18	The university Procurement Committee approves the supplier of the items on quotation	71	89	8
19	Tenders are awarded annually and a Tender Book is produced showing details of the suppliers and items to be supplied	73	91	7
20	The university Procurement Committee approves the purchase to be made on quotation	74	93	6
21	Purchasing department confirms the accuracy of the details on the requisition and then processes the LPO	76	95	5
22	User department raises a requisition for the items which are not on tender and takes it to the purchasing department	76	95	4
23	All requisitions are signed by the heads of departments	79	99	3
24	The requisitions are checked at vote-book section for availability of funds	79	99	2
25	Internal audit check the LPO for compliance	79	99	1
	Total score	1694		

N = 20

Source: Research findings, 2006.

From Table 3 above, the overall score out of the 20 respondents to the 25 indicators to the internal controls relating to procurement of goods, services and works was 1,694 which worked to 0.85 out of a maximum score of 2000.

The responses to each constituent item were scored on a scale of 1, indicating least level of effectiveness, to 4, indicating highest level of effectiveness. The individual item scores were added up to form an overall effectiveness score for each respondent. The respondents' overall score varied between 500, indicating the least overall level of effectiveness, and 2000, indicating the highest overall level of effectiveness. The higher the overall score, the more effective was the internal control system of procurement of goods, services and works, and vice versa.

The indicators of a highly effective internal control system were the budgetary control procedures which were found to be effectively applied as no purchase could proceed if funds were not available. A further indicator of effective internal controls was the approval system seen in that departments requisitions were approved by the Heads of Departments. On the strength of the requisitions, Supplies Department purchased items from suppliers on tender or from pre-qualified suppliers through quotations. The local purchase orders were signed by the Senior Supplies Officer and Deputy Vice Chancellor in charge of Finance and Administration and were checked by Examinations Section of Finance department for accuracy and by Internal Audit department for compliance to the government legislation and the University's regulations.

On the moderately effective controls the respondents reported that there were times when departments made purchases on their own, mainly on emergencies and that at times the Supplies Department did not consult the user department while identifying the possible suppliers for items bought on quotation.

#### **4.1.4 Receiving and Storage of items at the Central Stores**

The level of effectiveness of the internal control systems governing receiving and storage of items at the central stores was evaluated on a four-point likert scale (1 for Not at All, 2 for Not Aware, 3 for Sometimes, and 4 for All the Time) using 19 indicators relating to receipt and storage of items in the university. The sample respondents were requested to indicate their individual evaluation of the level of effectiveness of each indicators.



Appendix 3 ( iv) gives a distribution of their responses. Table 4 depicts the overall score, the percentage and ranking of their responses.

Table 4: Internal controls relating to Receiving and Storage of items at the Central Stores.

Indicators	Response		
	Total raw score	Percentage score	Ranking
1 Surprise stock counts are done by the in charge central stores frequently	45	56	19
2 It is only the clerk in charge of the LPO register and the goods movement daybook who can update the register	55	69	18
3 Stocks discrepancies between the physical stock and bin card balances are reconciled promptly	57	71	17
4 Any short-deliveries and items on the goods returned note are deducted from the invoice	60	75	16
5 Items on the GRNs are returned to the supplier promptly	61	76	15
6 Staff from other sections have no access to the central stores	61	76	14
7 A goods movement daybook is maintained at the central stores to record the date items were received or issued, delivery note number or store issue note number, description and quantity of items	61	76	13
8 The goods movement daybook and the LPOs register are updated as the transactions occur and at the end of the day	61	76	12

9	Bin cards are maintained for each of the items received at the central stores	61	76	11
10	In charge of central stores signs all the store issue notes	63	79	10
11	Damaged, substandard or wrongly supplied items are returned to the supplier through a goods returned note	65	81	9
12	All purchased items are received at the central stores on the strength of the green copy of the LPO and delivery note in the presence of the supplier, storekeeper and a member of staff from the verification section	67	84	8
13	Staff verifying receipt of items sign against appropriate comments on the delivery note in case of short-deliveries or returned items	67	84	7
14	An LPO register is maintained showing date of the LPO, the supplier, the LPO number, items on order, date items delivered and comments	69	86	6
15	All GRNs are signed by the in charge of the central stores	71	89	5
16	The storekeeper and staff from verification section sign the delivery note to confirm that goods received are in good condition	72	90	4
17	The store keeper takes full responsibility of items under his/her custody till when they are issued to the department through a store issue note	76	95	3
18	A good received note is raised for each proper item received and accepted	76	95	2

19	Items are issued out of the central stores on the strength of the stores issue note	77	96	1
Total score		1225		

N = 20

Source: Research findings, 2006.

From Table 4 above, the overall score out of the 20 respondents to the 19 indicators to the internal controls relating to receiving and storage of items at the Central Stores was 1225 which worked to 0.81 out of a possible maximum score of 1,520.

The responses to each constituent item were scored on a scale of 1, indicating least level of effectiveness, to 4, indicating highest level of effectiveness. The individual item scores were added up to form an overall effectiveness score for each respondent. The respondents' overall score varied between 380, indicating the least overall level of effectiveness, and 1,520, indicating the highest overall level of effectiveness. The higher the overall score, the more effective was the internal control system of receiving and storage of items at the central stores, and vice versa.

The indicators of a highly effective internal control system were the presence of a clear University policy on receiving, recording, storage and issue of items. The policy specified that all items be received at the Central Stores, witnessed by the user department and staff from the verification unit. The policy further specified that a goods received note be raised at the Central Stores for each proper item received and a stores issue note for each item leaving the Central Stores. To further strengthen this was the requirement that all payments to suppliers, or surrender of imprest, were supported by a Goods Received Note which was raised at the Central Stores on receipt of the goods. Another indicator of a highly effective internal control system was the approval and authorization procedures. The goods received notes and the stores issue notes were signed by the staff in charge of the Central Stores.



There were controls that were reported to be moderately effective such as surprise stock count which was not done frequently.

#### 4.1.5 Suppliers' records and payments for goods, services and works

The level of effectiveness of the internal control systems governing suppliers' records and payments for goods, services and works was evaluated on a four-point likert scale (1 for Not at All, 2 for Not Aware, 3 for Sometimes, and 4 for All the Time) using 17 indicators relating to suppliers' records in the university. The sample respondents were requested to indicate their individual evaluation of the level of effectiveness of each item. Appendix 3 (v) depicts the distribution of their responses. Table 5 gives the overall score, percentage and ranking of their responses.

Table 5: Internal controls relating to Suppliers' Records and payments for goods, services and works

	Indicators	Response		
		Total score	raw Percentage score	Rank
1	All the invoices received are entered on the data entry sheets for processing in computer section	47	59	17
2	A bank reconciliation is done monthly, two weeks after the end of the month of the transactions	54	68	16
3	Reconciling items are investigated and adjusted promptly	54	68	15
4	Creditors ledgers are maintained to record the invoices received and payments made	58	73	14

5	It is only the messenger in the cash office who takes the cheques to the processing offices	56	70	13
6	The cash book and the bank reconciliation are checked by the accountant in charge of cash office	58	73	12
7	A documents movement register is maintained to keep track of all documents received and released	62	78	11
8	Cheque books for use are issued to the accountant in charge of the cash office only	62	78	10
9	Paid vouchers are recorded in a cash book, against the cheque, and allocated a serial number which follows in a sequence	65	81	9
10	An LPO register is maintained to record each LPO received and each invoice received against the LPO and the payment	66	83	8
11	Creditors statements are produced and reconciled with the statements received from the suppliers	66	83	7
12	Payment vouchers are checked in the examination section for proper supporting documents and mathematical accuracy	70	88	6
13	Cheques are raised against the payment voucher in the cash office section	71	89	5
14	Internal audit check the payment voucher and supporting documents for compliance to the laid down procedures	71	89	4

15	Every payment voucher is supported by documents such as invoices, delivery notes, departmental requisition, GRNs, blue copy of the LPO, payroll, imprest form, salary advance form and expense claims	72	90	3
16	The cheque is taken to the cash office section for recording in the cheques disbursement register	72	90	2
17	The payee signs on the cheque disbursements register when collecting the cheque	73	91	1
Total score		1077		

N =20

Source: Research findings, 2006.

From Table 5 above, the overall score out of the 20 respondents to the 17 indicators to the internal controls relating to the supplier's records and payment for goods, services and works was 1,077 which works to 0.79 out of a possible total score of 1,360. The responses to each constituent item were scored on a scale of 1, indicating least level of effectiveness, to 4, indicating highest level of effectiveness. The individual item scores were added up to form an overall effectiveness score for each respondent. The respondents' overall score varied between 340, indicating the least overall level of effectiveness, and 1360, indicating the highest overall level of effectiveness. The higher the overall score, the more effective was the internal control system of suppliers' records and payments for goods, services and works, and vice versa.

The internal controls were reported to be effective in the cheque processing system. Each cheque was raised against a payment voucher which had supporting documents namely delivery notes, departmental requisition, goods received notes, blue copy of local purchase order, payroll, imprest form, salary advance form or claim form. The cheques



released were recorded in a Cheques Disbursements Register. The checking and vetting procedures carried out by Examinations section of Finance Department and Internal Audit Department was reported to strongly support an effective internal control system.

#### 4.1.6 Custody of cash and Accountable Documents

The level of effectiveness of the internal control systems governing custody of cash and accountable documents was evaluated on a four-point likert scale (1 for Not at All, 2 for Not Aware, 3 for Sometimes, and 4 for All the Time) using 21 indicators relating to cash management in the university. The sample respondents were requested to indicate their individual evaluation of the level of effectiveness of each indicators. Appendix 3 ( vi) shows the distribution of their responses. Table 6 depicts the overall score and the percentages of their responses.

Table 6: Internal controls relating to Custody Cash and Accountable Documents

Indicators	Response		
	Total raw score	Percentage score	Rank
1 Staff who have access to accounting records are prohibited from receiving unopened mail	46	58	21
2 A cashier receiving cash does not handle petty cash nor record the transaction in the cash book	52	65	20
3 The deposit of cash is done by a person separate from the cash collecting cashier	52	65	19

4	The cash and banking book is reconciled at the close of the day, checked and signed by a senior management personnel	52	65	18
5	A petty cashier has no access to receipt of cash	54	68	17
6	A cash and banking book is maintained to record all cash received and all cash banked on a daily basis	59	74	16
7	Encashment of cheques out of petty cash is not permitted	59	74	15
8	Payment of IOUs out of petty cash is not permitted	62	78	14
9	The cash received is safely kept in a safe	63	79	13
10	Unused accountable documents registers are maintained to account for all the unused cheques received from the banks and other accountable documents purchased	63	79	12
11	Unused accountable documents are accessible only to staff in whose custody they are	63	79	11
12	Unused accountable documents are stored in a strong room	64	80	10
13	Each department has a petty cash float	71	89	9
14	Only designated receiving cashiers are authorized to receive cash	72	90	8

15	Receiving cashiers assume full responsibility for the cash received from the time they are received until they hand them over for banking	72	90	7
16	A receipt issued for each cash received	74	93	6
17	Petty cash is reimbursed after the previous amount is exhausted	75	94	5
18	Petty cash books are checked every time there is a request for the reimbursement of the petty cash	75	94	4
19	Petty cash books are maintained to record all cash received and all payments made out of the petty cash	77	96	3
20	The head of the department approves all petty cash vouchers	77	96	2
21	A petty cash payment voucher is supported by a receipt(s)	78	98	1
Total score		1360		

N = 20

Source: Research findings, 2006.

From the Table 6 above, the overall score out of the 20 respondents to the 21 indicators to the internal controls relating cash and accountable documents was 1,360 which worked to 0.81 out of a possible maximum score of 1,680.

The responses to each constituent item were scored on a scale of 1, indicating least level of effectiveness, to 4, indicating highest level of effectiveness. The individual item scores were added up to form an overall effectiveness score for each respondent. The respondents' overall score varied between 420, indicating the least overall level of effectiveness, and 1,680, indicating the highest overall level of effectiveness. The higher



the overall score, the more effective was the internal control system of cash and accountable documents, and vice versa.

Among the indicators of a highly effective internal control system were approval and authorization procedures which was seen in that chairmen of departments approved all petty cash payments. Safe custody of accounting documents was seen in that the documents were stored in a safe office and there were records of receipt and issues of the documents for use. Proper records like cash books and petty cash books were kept.

Indicators of the system as moderately effective were reported under segregation of duties between the receiving and paying cashier where it was indicated that the receiving cashier could at times pay cash. Also the any of the cashiers could write the cash books or do banking.

#### 4.1.7 Budgetary Control.

The level of effectiveness of the internal control systems governing budgetary control was evaluated on a four-point likert scale (1 for Not at All, 2 for Not Aware, 3 for Sometimes, and 4 for All the Time) using 4 indicators relating to budget in the university. The sample respondents were requested to indicate their individual evaluation of the level of effectiveness of each indicators. Appendix 3 (vii) depicts the distribution of their responses. Table 7 shows the overall score, percentages and ranking of the responses to each indicator.

Table 7: Internal controls relating to Budgetary Control procedures

		Total raw Score	Percentage score	Rank
1	A vote-holder who exceeds the budgetary allocation in a particular period is asked to give an explanation	52	65	4

2	Expenditures above the budget allocation are returned to department	62	78	3
3	Expenditures out of the budget allocations are processed through vote-book section	66	83	2
4	The university council approves budgetary estimates and allocations	71	89	1
Total score		251		

N = 20

Source: Research findings, 2006.

From Table 7 above, the overall score out of the 20 respondents to the 4 indicators to the internal controls relating to budgetary control procedures was 251 which was 0.78 out of a possible maximum score of 320.

The responses to each constituent item were scored on a scale of 1, indicating least level of effectiveness, to 4, indicating highest level of effectiveness. The individual item scores were added up to form an overall effectiveness score for each respondent. The respondents' overall score varied between 80, indicating the least overall level of effectiveness, and 320, indicating the highest overall level of effectiveness. The higher the overall score, the more effective was the internal control system of budgetary control, and vice versa. The overall score was later coded into three ordinal categories in order to differentiate between the levels of effectiveness of the internal control system as assessed by the respondents.

The indicators of a highly effective internal control system relating to budgetary control were the approval by the University Council of the budgetary estimates and allocations. At the moderately effective level were that the departments who exceeded their budgetary allocations were not required to give an explanation.



#### 4.1.8 Custody and disposal of assets

The level of effectiveness of the internal control systems governing custody and disposal of assets was evaluated on a four-point likert scale (1 for Not at All, 2 for Not Aware, 3 for Sometimes, and 4 for All the Time) using 10 indicators relating to assets in the university. The sample respondents were requested to indicate their individual evaluation of the level of effectiveness of each indicators. Appendix 3 (xiv) gives the distribution of their responses. Table 8 depicts the overall score and percentages of their responses.

Table 8: Internal controls relating to Custody and Disposal of Assets

Indicators	Response		
	Total raw score	Percentage score	Rank
1 Physical inventory stock taking exercise is supervised by an independent person	55	69	10
2 Inventory records maintained are not accessible to individuals other than those who are in charge of the assets or inventories	59	74	9
3 Departments identify any damaged, obsolete or excess assets and inventories within their custody and return them to the central stores through a memorandum	64	80	8
4 The difference between the physical stock and the book record of asset and inventories are reconciled promptly	64	80	7
5 Central stores, with the help of the technical staff, separate the items returned from the departments into scrap and reusable categories	66	83	6
6 Assets and inventories are kept under the strict control of a few designated employees	66	83	5
7 The university's board of survey examines the items and makes recommendations for their disposal or transfer	69	86	4



8	Assets and inventories are issued against a stores issue note authorized by the in charge central stores	71	89	3
9	Assets and inventories are recorded as they are received	73	91	2
10	Physical inventory of stocks is taken annually	75	94	1
Total score		662		

N = 20

Source: Research findings, 2006.

From Table 8 above, the overall score out of the 20 respondents to the 10 indicators to the internal controls relating to custody and disposal of assets was 662 which was 0.83 out of a possible maximum score of 800.

The responses to each constituent item were scored on a scale of 1, indicating least level of effectiveness, to 4, indicating highest level of effectiveness. The individual item scores were added up to form an overall effectiveness score for each respondent. The respondents' overall score varied between 200, indicating the least overall level of effectiveness, and 800, indicating the highest overall level of effectiveness. The higher the overall score, the more effective was the internal control system of custody and disposal of assets, and vice versa.

The strong indicators of a highly effective system relating to custody and disposal of assets were the safe custody of the assets which were kept under strict control of a few designated employees. The records keeping and the issuance of assets through a stores issue note were further indicators of highly effective internal controls. The disposal of assets was done through a process of identification of items for disposal by the departments and approval for disposal by a Board of Survey. As was the case in the procurement of goods, services and works, the Government's legislation in the Public Procurement and Disposal Act, 2005 served to enhance the effectiveness of the internal controls.

#### 4.1.9 Overall effectiveness of control system.

Overall effectiveness of internal control systems reported by the respondents was then computed by summing up the above eight dimension scales. The overall score varied between 153, indicating the least overall level of effectiveness, and 612, indicating the highest overall level of effectiveness. The higher the score, the more effective was the internal control systems of the university, and vice versa. Table 9 shows the minimum and the maximum scores for the eight dimensions of the level of effectiveness of internal controls.

Table 9: Minimum and maximum scores of the level of effectiveness of internal controls.

	Dimension	Indicators	Minimum score	Maximum score
1	Staff recruitment and payment of wages and salaries	22	22	88
2	Information on debtors	35	35	140
3	Procurement of goods, services and works.	25	25	100
4	Receiving and storage of items at the Central Stores	19	19	76
5	Supplier's records and payment for goods, services and works.	17	17	68
6	Custody of cash and accountable documents	21	21	84
7	Budgetary control procedures	4	4	16
8	Custody and disposal of assets	10	10	40
	Total	153	153	612

N=20

Source: Research findings.



The overall score was later coded into three ordinal categories in order to differentiate between the levels of effectiveness of internal control systems among the sample respondents and included 153-305 (less); 306-459 (moderate) and 460-612 (high). Table 10 depicts the distribution of the overall level of effectiveness of internal control systems among the sample population

Table 10 Overall level of effectiveness of the internal control system

Level of effectiveness	Frequency	Percent
Less	0	0.0
Moderate	6	30.0
High	14	70.0
Total	20	100.0

Source: Research findings.

From the table, 70.0 percent of the respondents reported that the internal control systems governing university financial operations were highly effective in the university. This suggests that in the overall the University has put in place policies for the implementation of the internal controls and mechanisms to ensure adherence to the established internal controls set up by both the University and the legislation by the Government. The mechanisms include establishing departments with the responsibility to implement the internal controls. Such departments include Finance, Supplies. It has also set up monitoring units which include Internal Audit Department, Procurement Committee and the committees of the University Council such as Tender Committee, Audit and Governance Committee, Staff Development Committee.

#### 4.2 Testing hypothesis.

Objective two was to be tested using the null hypothesis which stated that “there is no significant difference in the evaluation of the level of effectiveness of the internal control systems between academic and non-academic departments in Egerton University ”. The



independent sample t-test was used to determine whether the difference in the evaluation of the effectiveness mean scores between the two samples (academic and non-academic departments) was significant or not. For t-test to be used, the grouping variable (departments in the university) should be nominal or ordinal variable, while the test variable (effectiveness of the internal control system) should be interval or continuous variable (actual scores). Table 11 depicts the output for the t-test.

Table 11 T-Test Comparing the evaluation of the effectiveness of internal control system by category of departments

Category of department	N	Effectiveness mean scores	Standard deviation	Mean difference	t-value	Sig. (2 tailed)
Non-academic	12	512.25	53.45	51.50	2.046	0.036
Academic	8	460.75	57.73			

N=20

Source: Research findings.

$$F = .282 \quad p = 0.026$$

Since  $p$  value  $< 0.05$  for both  $t$  and  $F$  values, we reject the null hypothesis two that suggested that “there is no significant difference in the evaluation of the level of effectiveness of the internal control systems between academic and non-academic departments in Egerton University”. Non-academic department recorded higher effectiveness mean scores ( $M = 512.25$ ,  $SD = 53.45$ ) than academic departments ( $M = 460.75$ ,  $SD = 57.3$ ). This suggests that the evaluation of the effectiveness of the internal control systems in the university depend on the category of the department. The above results were also corroborated by chi-square test. Chi-square is used to compare the frequency of two or more unrelated samples or categories of variables. It is preferred when dealing with variables that have been categorized for example departments (academic and non-academic), and level of effectiveness of the internal control systems (less, moderate and high). Table 12 shows a cross tabulation of the evaluation of the level of effectiveness of the internal control system by category of department.

Table 12: Chi-square test comparing the evaluation of the level of effectiveness of the internal control system by category of department

Response (%)		Category of department		Total
		Non-academic (Administrative)	Academic	
Level of effectiveness	Moderate	1 8.3%	5 62.5%	6 30.0%
	High	11 91.7%	3 37.5%	14 70.0%
Total		12	8	20

N=20

Source: Research findings.

$$\chi^2 = 6.706 \quad p = .010 \quad df = 1$$

Table 12, suggests that it is likely for there to be a significant difference in the evaluation of the level of effectiveness of the internal control systems between academic and non-academic departments in Egerton University. It can be observed that majority (91.7 percent) of the respondents from non-academic departments considered the internal control systems as more effective while majority (62.5 percent) of the academic departments' respondents viewed them as moderately effective. This is further supported by the chi-square statistic,  $\chi^2 (1, 20) = 6.706, p < 0.05$ , suggesting that there is a significant difference in the evaluation of the level of effectiveness of the internal control systems between academic and non-academic departments in Egerton University.



## CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS.

### 5.1 Conclusions.

The respondents indicated an overall 70 percent effectiveness of the internal control systems in Egerton University. This suggests that in the overall the University had put in place internal controls and mechanisms to ensure adherence to the established controls set up by the University and the legislation by the Government. Such mechanisms included establishing departments with the responsibility to implement the internal controls as they carry out the financial processes. Such departments included Finance, Supplies and Personnel departments with their various sections namely Cash Office Section, Salaries Section, Computer Section, Debtors Section, Creditors Section, Examinations Section, Final Accounts Section, Students Finance Section, and Income Generation Section. Supplies department had Central Stores, Sub-stores, Verification Section, Purchasing Sections. Finance Department was vested with the responsibility to ensure accountability for all the university's assets. Supplies Department was vested with the responsibility to procure all items for the University. The University had also set up monitoring units to ensure compliance to the laid down internal controls. These were Internal Audit Department, Procurement Committee and the committees of the University Council such as Tender Committee, Audit and Governance Committee, Staff Development Committee.

The study also indicated that there was a significant difference in the evaluation of the effectiveness of the internal controls between the academic and non-academic departments. The non-academic departments evaluated the internal controls as highly effective while the academic departments concluded they were moderately effective. This can be attributed to the stage at which the departments are exposed to the internal controls. Two stages can be identified in the application of the internal controls. A user/department applied the internal controls when using it to obtain something be it cash, an item, a service, works, staff. For instance, in applying for additional staff, a user/department applies the internal control relating to staff recruitment by making a written request to Deputy Vice Chancellor in charge of administration and finance. An



internal control is also applied when it was used to check whether the user/department has complied with the internal controls. For instance, before recruiting additional staff, Personnel Department will check for Deputy Vice Chancellor in charge of administration and finance's approval. Non-academic departments were exposed to the internal controls both at both levels of the application, that was when they required to obtain something be it cash, an item, a service, works, staff and when carrying out the financial processes or checking for compliance. On the other hand, the academic departments applied the internal controls when obtaining cash, an item, a service, works, or additional staff.

## **5.2 Recommendations.**

Due to the significant difference in the evaluation of the effectiveness of the internal controls between the academic and non-academic departments there is need for the University to come up with a program with the aim to sensitize departments on the internal controls. Sensitization can be achieved through production of Procedures Manuals detailing the internal control procedures in each of the units which process the financial transactions or are involved in the process of checking compliance to the internal controls. This includes sections in Finance, Procurement, Personnel, Medical, Transport, Catering, Estates Departments and all Income Generating Units.

## **5.3 Suggestions for further research.**

Among the initial objectives of this study was to establish factors that influence the effectiveness of the internal control systems. The respondents did not respond to the open ended part in the questionnaire that would have served to establish the factors. A study to establish the factors that influence the effectiveness of internal controls can be carried out, using an open ended questionnaire.

This study evaluated the effectiveness of the internal control system relating to financial management in the University. An evaluation of the effectiveness of the internal control system relating to management of academic systems would yield good results.

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**APPENDICES**

**APPENDIX 1 COVERING LETTER.**

Date.....

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I am a post graduate student at Egerton University studying for a masters degree in Business Administration. I am now undertaking a research project, which is part of the requirements for the program. My research is on ' The effectiveness of the internal control system in management of finances in public universities in Kenya: A case of Egerton University'.

I kindly request you to assist me in data collection by filling out the questionnaire attached. The information you give will be treated with utmost confidentiality and the results of the research will be for academic purposes only.

I shall be grateful to receive your favourable response.

**APPENDIX 2 LETTER OF AUTHORITY.**

P O Box 536  
EGERTON

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Dear Sir,

RE: AUTHORITY TO USE THE UNIVERSITY'S ACCOUNTING RECORDS FOR  
MBA PROJECT

I am a post graduate student at Egerton University studying for a masters degree in Business Administration. I am now undertaking a research project which is part of the requirements for the programme. My research is on ' The effectiveness of the internal control system in management of finances in public universities in Kenya: A case of Egerton University'.

I am writing to seek your authority to enable me to collect data for the purposes of the research from the university's accounting records.

I shall be grateful to receive your quick response.

### APPENDIX 3: TABLES OF LEVEL OF EFFECTIVENESS.

Appendix 3 (i): The level of effectiveness in Staff recruitment and payment of wages and salaries

Indicators	Response				
	Total raw score	All the time	Sometimes	Not aware	Not at all
1 Staff in computer section have no access to the PCAs in the salaries section	49	49	9	22	2
2 A senior accountant confirms mathematical accuracy of the payroll schedule before authorizing for cheques to be raised	55	24	12	18	1
3 The clerk makes a monthly wages summary at the end of the month for each casual worker showing the details of the worker, number of hours worked, applicable hourly rate, and wages payable	58	42	6	6	0
4 Personnel section checks the request by departments against the organization structures	62	36	15	0	1
5 Staff from other sections have no access to the computer section	62	36	12	14	0
6 Personnel section check the printout of changes to the payroll against the PCA issued for the month	63	44	3	16	0
7 R(A) signs the letter of authority for department to hire casual workers	64	40	12	10	0



Short-listing is done by a panel made up of personnel, the respective department and a representative from the senate	65	32	27	2	0
A committee under the RA deliberates on department request to hire casual workers and approves, rejects or amends the request	65	40	15	2	0
The clerk enters the details of the hours worked, as recorded on the daily work records, on the muster roll	67	52	9	6	0
Job advertisement made for any vacant position to be filled	68	36	30	10	0
Changes to the payroll are made on the strength of a PCA only	68	56	3	8	1
The monthly wages summary is approved by the head of the department	69	52	9	10	2
Personnel section issues a schedule for new rates of pay for annual increments and any pay changes affecting all employees across the board	70	52	12	6	0
Department makes written requests to DVC (A & F) for additional employees	71	44	27	2	0
Interviews are conducted by a panel chaired by the chairman of the university for academic and senior administrative staff and DVC (A & F) for all other categories	71	52	15	6	0
A daily work record is maintained by the supervisor for each casual worker	61	56	9	12	0

18	Salaries section check the workings on the monthly wages summary	71	60	3	6	0
19	Wages are paid at the cash office with the assistance of the supervisor	71	36	27	8	0
20	Letters of appointment are signed by the registrar administration – R(A)	72	64	6	4	2
21	Personnel records are maintained showing their terms and conditions of services	73	64	6	0	1
22	Personnel section raise PCAs to finance department for new employees showing effective date of payment, rate of the basic pay and other allowances and for change of pay on promotion, retirement or dismissal	76	72	0	4	0
		1461	1006	267	178	10

N = 20

Source: Research findings, 2006

### Appendix 3 (ii): The level of effectiveness in Information on debtors' records

Indicators	Response				
	Total raw score	All the time	Some times	Not aware	Not at all
1 Imprest is surrendered within 48 hours of the completion of the activity for which it was taken.	27	0	27	0	0
2 Follow up of debts done by IGU department	46	0	24	22	0

3	Staff get salary advance up to a maximum of three times in a calendar year.	47	12	9	24	2
4	Staff from other departments have no access to debtors section	48	16	12	16	4
5	A salary advance is charged interest at the commercial bank rates	48	20	3	22	3
6	All collections from the credit sales are collected thirty days after the invoice date	50	4	30	14	2
7	A goods inwards returns note is maintained for the goods returned by customers	50	20	6	22	2
8	Imprest which is not surrendered by the 10 <sup>th</sup> of the following month is recovered from the salary of the month	51	4	39	4	4
9	Students pay fees in full at the beginning of the semester	53	4	42	4	3
10	A debtors ledger is maintained in IGU department	53	24	9	18	2
11	A salary advance is recovered in three monthly installments starting from the month that it is advanced or the following month if the advance is taken after the payroll entries have been closed	54	20	15	18	1
12	The imprest forms for the staff who have not surrendered previous imprests are returned to the applicant	56	4	48	2	2



13	A register of goods returned is maintained to support the short-credit invoice	56	28	6	22	0
14	A normal salary advance is up to a maximum of one month's salary net of statutory deductions	57	28	9	20	0
15	Items for sale on credit are authorized by the farm manger or head of department against the request document by the credit customers	57	28	12	16	1
16	Sales on credit are given only to customers who have been assessed and found to be creditworthy	60	28	18	14	0
17	Staff members fill salary advance forms before they can get salary advance	62	48	0	12	2
18	Debtors section record the salary advance as a debtor	62	44	0	18	0
19	The delivery note is signed by the farm manager or head of department	62	36	15	10	1
20	The invoice is signed by the farm manager or head of department	63	36	18	8	1
21	Imprest forms for expenditures whose votes are exhausted are returned to the respective departments	64	40	15	8	1
22	The imprest form is checked at the debtors section to confirm all previous imprest have been surrendered and record the transaction	64	36	21	6	1

23	The salary advance form is checked in salaries section to avoid over-commitment of the salary	64	40	12	12	0
24	The salary advance form is supervised by DVC (A & F)	64	44	6	14	0
25	A delivery note is raised for every delivery note	64	40	12	12	0
26	An invoice is raised for every delivery note	66	48	6	12	0
27	Salaries section records the salary advance for recovery	68	56	0	12	0
28	Students deposit fees in the university bank account and submit the deposit slip to cash office for issuance of the receipt	73	64	3	6	0
29	The imprest form is approved by the dean in case of academic faculties or the DVC for non-academic departments	74	60	12	2	0
30	A pay change advice is raised in personnel department	76	72	0	4	0
31	Tuition fees and accommodation charges are received against the letter of admission	76	52	13	10	1
32	A students ledger is maintained in a computer programme	76	40	15	20	1
33	The imprest is committed at vote-book section to accumulate the expenditure on the vote and to indicate availability of funds	78	72	6	0	0

34	The imprest form is signed by the chairman of the department to authorize expenditure from the department's vote	79	76	3	0	0
35	Staff apply for imprest by filling the imprest form	80	80	0	0	0
		2128	1224	466	404	34

N = 20

Source: Research findings, 2006

### Appendix 3 (iii): The level of effectiveness in Procurement of Goods, Services and Works

Indicators	Response				
	Total raw score	All the time	Sometim es	Not aware	Not at all
1 Quotations forms are opened by the buyer of the particular item in the presence of an auditor	49	24	9	14	2
2 All purchases are made by the purchasing department	57	24	24	6	3
3 Purchasing department consults the user department to identify possible suppliers	58	28	21	6	3
4 The user department recommends a supplier and signs against the recommendations on the quotation analysis form	58	24	24	8	2



5	The quotation forms are recorded in a quotation register and sent to the supplier with instructions to deliver the quotations to the purchasing department	62	40	9	12	1
6	Each quotation form is allocated a serial number referenced to the quotations register	62	36	12	14	0
7	The quotations are analyzed by the buyer in a Quotations Analysis Form.	62	40	9	12	1
8	The duplicate blue copy of the LPO is sent to the creditors section to wait payment	64	48	3	12	1
9	The senior supplies officer is the first signatory of the LPO	65	44	9	12	0
10	Purchasing department issues quotations of at least three suppliers recommended by the user department	65	40	21	2	2
11	Purchases are made following the procedure laid out in the Public Procurement and Disposal Act, 2005	68	40	24	4	0
12	Most purchases are made from the suppliers on the tender book	68	44	18	6	0
13	DVC (A & F) signs the LPO to authorize the purchase	68	52	6	10	0
14	Quotations are obtained from at least three of the pre-qualified	70	48	18	4	0

	suppliers for the purchase of items on quotations					
15	The original white copy of the LPO is delivered to the supplier	70	60	0	10	0
16	The triplicate green receiving copy of the LPO is sent to the central stores to await delivery of items	70	60	0	10	0
17	User department raises requisition, indicating specifications, the suppliers and prices	71	52	18	0	1
18	The university procurement committee approves the supplier of the items on quotation	71	56	9	6	0
19	Tenders are awarded annually and a tender book is produced showing details of the suppliers and items to be supplied	73	60	9	4	0
20	The university procurement committee approves the purchase to be made on quotation	74	64	6	4	0
21	Purchasing department confirms the accuracy of the details on the requisition and the processes of LPO	76	68	6	2	0
22	User department raises a requisition for the items which are not on tender and takes it to the purchasing department	76	64	12	0	0
23	All requisitions are signed by the heads of departments	79	76	3	0	0

24	The requisitions are checked at vote-book section for availability of funds	79	76	3	0	0
25	Internal audit check the LPO for compliance	79	68	3	8	0
Total score		1694	1232	279	168	15

N = 20

Source: Research findings, 2006.

Appendix 3 (iv): The level of effectiveness in Receiving and Storage of items at the Central Stores.

Items/indicators	Response				
	Total raw score	All the time	Sometimes	Not aware	Not at all
1 Surprise stock counts are done by the in charge central stores frequently	45	12	12	20	1
2 It is only the clerk in charge of the LPO register and the goods movement daybook who can update the register	55	20	15	20	0
3 Stocks discrepancies between the physical and bin card balances are reconciled promptly	57	20	21	16	0



4	Any short-deliveries and items on the goods returned note are deducted from the invoice	60	32	12	16	0
5	Items on the GRNs are returned to the supplier promptly	61	28	21	12	0
6	Staff from other sections have no access to the central stores	61	36	12	12	1
7	A goods movement daybook is maintained at the central stores to record the date items were received or issued, delivery note number or store issue note, description and quantity of items	61	36	9	16	0
8	The goods movement daybook and the LPOs register are updated as the transactions occur and at the end of the day	61	32	15	14	0
9	Bin cards maintained for each of the items received at the central stores	61	40	9	12	0

10	In charge of central stores signs all the store issue notes	63	36	15	12	0
11	Damaged, substandard or wrongly supplied items are returned to the supplier through a goods returned note	65	40	15	10	0
12	All purchased items are received at the central stores on the strength of the green copy of the LPO and delivery note in the presence of the supplier, storekeeper and a member of staff from the verification section	67	48	12	6	1
13	Staff verifying receipt of items sign against appropriate comments on the delivery note in case of short-deliveries or returned items	67	44	15	6	2
14	An LPO register is maintained showing date of the LPO, the supplier, the LPO number, items on order, date items delivered and comments	69	56	3	10	0

15	All GRNs are signed by the in charge of the central stores	71	52	15	4	0
16	The storekeeper and staff from verification section sign the delivery note to confirm that goods received are in good condition	72	60	6	6	0
17	The store keeper takes full responsibility of items under his/her custody till when they are released to the department through a store issue note	76	72	0	4	0
18	A good received note is raised for each proper item received and accepted	76	68	6	2	0
19	Items are issued out of the central stores on the strength of the stores issue note	77	72	3	2	0
		1225	804	216	200	5

N = 20

Source: Research findings, 2006.



Appendix 3 (v): The level of effectiveness in Suppliers' Records and payments for goods, services and works

Indicators	Response				
	Total raw score	All the time	Sometimes	Not aware	Not at all
1 All the invoices received are entered on the data entry sheets for processing in computer section	47	12	6	28	0
2 A bank reconciliation is done monthly, two weeks after the end of the month of the transactions	54	24	6	24	0
3 Reconciling items are investigated and adjusted promptly	54	24	6	24	0
4 Creditors ledgers are maintained to record the invoices received and payments made	58	32	6	20	0
5 It is only the messenger in the cash office who takes the cheques to the processing offices	56	20	21	14	1
6 The cash book and the bank reconciliation are checked by the accountant in charge of cash office	58	36	0	22	0

7	A documents movement register is maintained to keep track of all documents received and released	62	40	6	16	0
8	Cheque books for use are issued to the accountant in charge of the cash office only	62	40	6	16	0
9	Paid vouchers are recorded in a cash book, against the cheque, and allocated a serial number which follows in a sequence in the cashbook	65	48	3	14	0
10	An LPO register is maintained to record each LPO received and each invoice received against the LPO and the payment	66	40	12	14	0
11	Creditors statements are produced and reconciled with the statements received from the suppliers	66	40	24	0	2
12	Payment vouchers are checked in the examination section for proper supporting documents and mathematical accuracy	70	56	6	8	0
13	Cheques are raised against the payment voucher in the cash office section	71	60	3	8	0

14	Internal audit check the payment voucher and supporting documents for compliance to the laid down procedures	71	60	3	8	0
15	Every payment voucher is supported by documents such as invoices, delivery notes, departmental requisition, GRNs, blue copy of the LPO, payroll, imprest form, salary advance form and expense claims	72	64	0	8	0
16	The cheque is taken to the cash office section for recording in the cheques disbursement register	72	64	0	8	0
17	The payee signs on the cheque disbursements register when collecting the cheque	73	60	9	4	0
Total score		1077	720	117	236	4

N =20

Source: Research findings, 2006.



Appendix 3 (vi): The level of effectiveness in Custody Cash and Accountable Documents

	Indicators	Response				
		Total raw score	All the time	Sometimes	Not aware	Not at all
1	Staff who have access to accounting records are prohibited from receiving unopened mail	46	8	9	28	1
2	A cashier receiving cash does not handle petty cash nor record the transaction in the cash book	52	20	9	22	1
3	The deposit of cash is done by a person separate from the cash collecting cashier	52	20	9	22	1
4	The cash and banking book is reconciled at the close of the day, checked and signed by a senior management personnel	52	12	18	22	0
5	A petty cashier has no access to receipt of cash	54	20	12	22	0
6	A cash and banking book is maintained to record all cash received and all cash banked on a daily basis	59	36	3	20	0
7	Encashment of cheques out of petty cash is not permitted	59	40	3	14	2

8	Payment of IOUs out of petty cash is not permitted	62	28	24	10	0
9	The cash received is safely kept in a safe	63	44	3	16	0
10	Unused accountable documents registers are maintained to account for all the unused cheques received from the banks and other accountable documents purchased	63	44	3	16	0
11	Unused accountable documents are accessible only to staff whose custody they are	63	44	3	16	0
12	Unused accountable documents are stored in a strong room	64	44	6	14	0
13	Each department has a petty cash float	71	52	15	4	0
14	Only designated receiving cashiers are authorized to receive cash	72	64	0	8	0
15	Receiving cashiers assume full responsibility for the cash receipts from the time they are received until they hand them over for banking	72	64	0	8	0
16	A receipt issued for each cash received	74	64	6	4	0

17	Petty cash is reimbursed after the previous amount is exhausted	75	60	15	0	0
18	Petty cash books are checked every time there is a request for the reimbursement of the petty cash	75	68	3	4	0
19	Petty cash books are maintained to record all cash received and all payments made out of the petty cash	77	68	3	6	0
20	The head of the department approves all petty cash vouchers	77	72	3	2	0
21	A petty cash payment voucher is supported by a receipt(s)	78	64	12	2	0
		1360	936	159	260	5

N = 20

Source: Research findings, 2006

Appendix 3 (vii): The level of effectiveness in Budgetary Control procedures

Items/indicators	Total raw Score	All the time	Sometimes	Not aware	Not at all
1 A vote-holder who exceeds the budgetary allocation in a particular period is asked to give an explanation	52	20	12	18	2



2	Expenditures above the budget allocation are returned to department	62	36	15	10	1
3	Expenditures out of the budget allocations are processed through vote-book section	66	52	3	10	1
4	The university council approves budgetary estimates and allocations	71	60	3	8	0
Total score		251	168	33	46	4

N = 20

Source: Research findings, 2006.

#### Appendix 3 (viii): The level of effectiveness in Custody and Disposal of Assets

Indicators	Response				
	Total raw score	All the time	Sometimes	Not aware	Not at all
1 Physical inventory stock taking exercise is supervised by an independent person	55	24	12	18	1

2	Inventory records maintained are not accessible to individuals other than those who are in charge of the assets or inventories	59	28	15	16	0
3	Departments identify any damaged, obsolete or excess assets and inventories within their custody and return them to the central stores through a memorandum	64	32	27	4	1
4	The difference between the physical stock and the book record of asset and inventories are reconciled promptly	64	36	18	10	0
5	Central stores, with the help of the technical staff, separate the items returned from the departments into scrap and reusable categories	66	44	15	6	1
6	Assets and inventories are kept under the strict control of a few designated employees	66	44	12	10	0

7	The university's board of survey examines the items and makes recommendations for their disposal or transfer	69	52	9	8	0
8	Assets and inventories are issued against a stores issue note authorized by the in charge central stores	71	60	3	8	0
9	Assets and inventories are recorded as they are received	73	52	9	12	0
10	Physical inventory of stocks is taken annually	75	64	9	2	0
Total score		662	436	129	94	3

N =20

Source: Research findings, 2006.



## APPENDIX 4 QUESTIONNAIRE.

### Appendix 4 (i) Staff Recruitment and payment of Wages and Salaries

	INTERNAL CONTROL	ALL THE TIME	SOMETIMES	NOT AWARE	NOT AT ALL
1	Departments make written requests to DVC(A&F) for additional employees.				
2	Personnel Section check the request by departments against the organization structure.				
3	Job advertisements made for any vacant position to be filled.				
4	Short-listing is done by a panel made up of personnel, the respective department and a representative from the senate.				
5	Interviews are conducted by a panel chaired by Chairman of University Council for staff in the Academic and Senior Administrative staff categories and by DVC(A&F) for all other categories.				
6	Letters of appointment are signed by Registrar (Administration) (R(A)).				
7	Personnel records are maintained showing their terms of service, permanent contact address, next of kin, rate of pay and grade on first appointment, promotions, retirement or dismissal and other occurrences in the employment life of the staff.				
8	A committee under the R(A) deliberates on departments' requests to hire casual workers and approves, rejects or amends the requests.				

9	R(A) signs the letter of authority for departments to hire casual workers.				
10	A Daily Work Record is maintained by the supervisor for each casual worker who worked on a particular day showing the number of hours worked.				
11	The clerk enters the details of the hours worked, as recorded on the Daily Work Records, on the Muster Roll.				
12	The clerk makes a Monthly Wages Summary at the end of the month showing the name of the worker, identification of the worker, number of hours worked, the applicable hourly rate and the wages payable.				
13	The Monthly Wages Summary is approved by the head of department.				
14	Salaries Section check the workings on the Monthly Wages Summary.				
15	Wages are paid at the Cash Office with the assistance of the Supervisor.				
16	Personnel Section raise PCAs to Finance Department for new employees showing the effective date of payment, rate of basic pay and other allowances and for change of pay on promotion, retirement or dismissal.				
17	Personnel Section issue a Schedule of new rates of pay for annual increments and any pay changes affecting all employees across the board.				
18	Changes to the payroll are made on the strength of a PCA only.				
19	Personnel Section check the printout of changes to the payroll against the PCAs issued for the month.				

20	Staff in Computer Section have no access to the PCAs in Salaries Section.				
21	A Senior Accountant confirms mathematical accuracy of the payroll schedule before authorizing for cheques to be raised.				
22	Staff from other sections have no access to computer section.				

In case there are other internal controls in the department please write them down.

- i).....
- ii).....
- iii).....
- iv).....

In case there are other factors that make it difficult for you to operate within the internal control please write them below.

- i).....
- ii).....
- iii).....

Thank for your help in completing the above questionnaire.

Appendix 4 (ii) Information on Debtors:

	INTERNAL CONTROL	ALL THE TIME	SOME TIMES	NOT AWARE	NOT AT ALL
1	Imprest is surrendered within forty eight hours of the completion of the activity for which it was taken.				



2	Staff apply for imprest by filling the imprest form.				
3	Imprest which is not surrendered by 10 <sup>th</sup> of the following month is recovered from the salary of that month.				
4	The imprest form is signed by the chairman of department to authorize expenditure from the department's vote.				
5	The imprest form is approved by the Dean in case of academic faculties or by the Deputy Vice Chancellors for the non-academic departments.				
6	Imprest is committed at Vote-book Section to accumulate the expenditure on the vote head and to indicate availability of funds.				
7	Imprests forms for expenditures whose votes are exhausted are returned to the respective department.				
8	The imprest form is checked at the Debtors Section to confirm that all previous imprests have been surrendered and to record the transaction.				
9	The imprest forms for staff who have not surrendered previous imprests are returned to the applicant.				
10	Staff from other departments have no access to Debtors Section.				
11	Staff members fill a salary advance form before they can get a salary advance.				
12	Staff get a salary advance upto a maximum of three times in a calendar year.				

13	A salary advance is charged interest at the commercial bank interest rates.				
14	A salary advance is recovered in three monthly installments starting from the month it is advanced or the following month if the advance is taken after the payroll entries have been closed.				
15	A normal salary advance is upto a maximum of one months' salary net of statutory deductions.				
16	The salary advance form is checked in Salaries Section to avoid over-commitment of the salary.				
17	The salary advance form is approved by DVC (A&F).				
18	A Pay Change Advice is raised in Personnel Department.				
19	Salaries Section records the salary advance for recovery.				
20	Debtors Section record the salary advance as a debtor.				
21	Sales on credit are given only to customers who have been assessed and found to be creditworthy.				
22	All collections from the credit sales are collected thirty days after the invoice date.				
23	Items for sale on credit are authorized by the farm manager or head of department against the request document by the credit customers.				

24	A delivery note is raised for every sale on credit.				
25	An invoice is raised for every delivery note.				
26	The delivery note is signed by the farm manager or head of department.				
27	The invoice is signed by the farm manager or head of department.				
28	Fees is received against the letter of admission.				
29	Students deposit fees in the University's bank account(s) and submit the bank deposit slip to cash office for issuance of a receipt.				
30	Students pay fees in full at the beginning of a semester.				
31	A students fees ledger is maintained in a computer program.				
32	A Goods Inwards Returns Note is maintained for goods returned by customers.				
33	A register of goods returned is maintained to support the short-credited invoice.				
34	A Debtors ledger is maintained in Income Generation Units (IGU) Department.				
35	Follow up of debts done by IGU department.				

In case there are other internal controls in the department please write them down.

- i).....
- ii).....
- iii).....
- iv).....



In case there are other factors that make it difficult for you to operate within the internal control please write them below.

- i).....
- ii).....
- iii).....
- iv).....

Thank for your help in completing the above questionnaire.

Appendix 4 (iii) Procurement of goods services and works

	INTERNAL CONTROL	ALL THE TIME	SOMETIMES	NOT AWARE	NOT AT ALL
1	Purchases are made following the procedures laid out in the Public Procurement Act (2005).				
2	Tenders are awarded annually and a tender book is produced showing the suppliers, their contact, the items they will supply and the tender price.				
3	Most purchases are made from the suppliers on the tender book.				
4	Quotations are obtained from at least three of the pre-qualified suppliers for the purchase of items on quotation.				
5	All purchases are made by Purchasing Department.				

6	User department raise requisition, indicating the specifications, the supplier and the price before the purchase can be made.				
7	All requisitions are signed by heads of departments				
8	The requisitions are checked at Vote-book Section for availability of funds.				
9	Purchasing Department confirms the accuracy of the details on the requisition and processes the LPO.				
10	The Senior Supplies Officer (SSO) is the first signatory to the LPO.				
11	DVC(A&F) signs the LPO to authorize the purchase.				
12	Internal Audit check the LPO for compliance to the laid down procedures.				
13	The original white copy of the LPO is delivered to the supplier.				
14	The duplicate paying blue copy of the LPO is sent to Creditors Section to await other supply documents for payment.				
15	The triplicate green receiving copy of the LPO is sent to Central Stores to await delivery of items.				
16	User department raise a requisition for items which are not on tender and takes it to Purchasing Department.				

17	Purchasing Department consults the user department to identify the possible suppliers.				
18	Purchasing Department issues quotations forms to at least three of the pre-qualified suppliers recommended by the user department.				
19	The quotations forms are recorded in a Quotations Register and sent to suppliers with instructions to deliver the quotations direct to Purchasing Department in a sealed envelop.				
20	Each quotation form is allocated a serial number which is referenced to the Quotations Register.				
21	Quotation forms are opened by the Buyer of the particular item in the presence of an Auditor.				
22	The quotations analysed by the Buyer in a Quotations Analysis Form.				
23	The user department recommends a supplier and signs against the recommendation on the Quotations Analysis Form.				
24	The University's Procurement Committee (PC) approves the purchase to be made on quotation.				



25	The University's Procurement Committee (PC) approves the supplier of items on quotation.				
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In case there are other internal controls in the department please write them down.

- i).....
- ii).....
- iii).....
- iv).....

In case there are other factors that make it difficult for you to operate within the internal control please write them below.

- i).....
- ii).....
- iii).....
- iv).....

Thank for your help in completing the above questionnaire.

Appendix 4 (iv) Receiving and storage of items at the Central Stores.

	INTERNAL CONTROL	ALL THE TIME	SOMETIMES	NOT AWARE	NOT AT ALL
1	All purchased items are received at the Central Stores on the strength of the green copy of the LPO and the delivery note in the presence of the supplier, the storekeeper and a member of staff from the Verification Section.				
2	The storekeeper and the staff from Verification Section sign on the delivery note to confirm that the goods received are in good condition.				
3	Any damaged, sub-standard or wrongly supplied items are returned to the supplier through a Goods Returned Note.				
4	Any short-deliveries and items on the Goods Returned Note are reduced from the invoice.				
5	Staff verifying receipt of items sign against appropriate comments on the delivery note in case of short-deliveries or returned items.				
6	The storekeeper take full responsibility of the items under his/her custody till they are released to departments through a Stores Issue Note.				

7	A Goods Received Note is raised for each proper item received and accepted.				
8	All GRNs are signed by the in charge of the Central Stores.				
9	Items on the Goods Returned Note are returned to the supplier promptly.				
10	Items are issued out of the Central Stores on the strength of a Stores Issue Note.				
11	In charge Central Stores signs all the Stores Issue Notes.				
12	Surprise stock counts are done by in charge of central stores frequently.				
13	Stock discrepancies between the physical stock and bin card balances are reconciled promptly.				
14	Staff from other sections have no access to documents and items in the Central Stores.				
15	A Goods Movement Daybook is maintained at the Central Stores to record the date item was received or issued, delivery note number or stores issue note number, description and quantity of item.				
16	An LPOs Register is maintained showing date of LPO, the supplier, LPO number, items on order, date items delivered, and comments.				



17	The Goods Movement Daybook and the LPOs Register are updated as the transactions occur and at the end of the day.				
18	It is only the clerk in charge of the LPOs Register and the Goods Movement Daybook who can update the registers.				
19	Bin Cards maintained for each of the items received at the Central Stores.				

In case there are other internal controls in the department please write them down.

- i).....
- ii).....
- iii).....
- iv).....

In case there are other factors that make it difficult for you to operate within the internal control please write them below.

- i).....
- ii).....
- iii).....
- iv).....

Thank for your help in completing the above questionnaire.

Appendix 4 (v) Supplier's records and payments for goods, services and works.

	INTERNAL CONTROL	ALL THE TIME	SOMETIMES	NOT AWARE	NOT AT ALL
1	Creditors Statements are produced and reconciled with the Statements received from the suppliers.				
2	Payment vouchers are checked in Examinations Section for proper supporting documents and mathematical accuracy.				
3	It is only the messenger in cash office who takes the cheques to the processing offices.				
4	Internal Audit check the payment voucher and supporting documents for compliance to the laid down procedures.				
5	The payee signs on the Cheques Disbursements Register when collecting the cheque.				
6	Cheques books for use are issued to the accountant in charge of cash office only.				
7	Paid vouchers are recorded in a cash book, against the cheque, and allocated a serial number which follows in a sequence in the cashbook.				

8	The cash book and the bank reconciliation are checked by the accountant in charge of cash office.				
9	Reconciling items are investigated and adjusted promptly.				
10	An LPOs register is maintained to record each LPO received and each invoice received against the LPO and the payment.				
11	A Documents Movement Register is maintained to keep track of all documents received and released.				
12	Creditors Ledgers are maintained to record the invoices received and payments made.				
13	All invoices received are entered on the Data Entry Sheets for processing in Computer Section.				
14	Every payment voucher is supported by documents such as invoices, delivery notes, departmental requisition, GRNs, blue copy of LPO, payroll, imprest form, salary advance form, expense claims.				
15	Cheque are raised against the payment voucher in the Cash Office Section.				
16	The cheque is taken to Cash Office Section for recording in the Cheques Disbursement Register.				



17	A bank reconciliation done monthly, two weeks after the end of the month of the transactions.				
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In case there are other internal controls in the department please write them down.

- i).....
- ii).....
- iii).....
- iv).....

In case there are other factors that make it difficult for you to operate within the internal control please write them below.

- i).....
- ii).....
- iii).....
- iv).....

Thank for your help in completing the above questionnaire.

Appendix 4 (vi) Custody of Cash and Receipts documents.

	INTERNAL CONTROL	ALL THE TIME	SOMETIMES	NOT AWARE	NOT AT ALL
1	A receipt issued for each cash received				
2	Only designated receiving cashiers are authorized to receive cash.				

3	Receiving cashiers assume full responsibility for the cash receipts from the time they are received until they hand them over for banking.				
4	The cash received is safely kept in a safe?				
5	A cashier receiving cash does not handle petty cash nor record the transaction in the cash book.				
6	The deposit of cash is done by a person separate from the cash collecting cashier.				
7	A cash and banking book is maintained to record all cash received and all cash banked on a daily basis.				
8	The cash and banking book is reconciled at the close of the day, checked and signed by a senior management personnel.				
9	Staff who have access to accounting records are prohibited from receiving unopened mail.				
10	Unused accountable documents are stored in a strong room.				
11	Unused accountable documents registers are maintained to account for all the unused cheques received from the banks and other accountable documents purchased.				

12	Unused accountable documents are accessible only to staff in whose custody they are				
13	Each department has a petty cash float				
14	Petty cash books are maintained to record all cash received and all payments made out of the petty cash.				
15	A petty cashier has no access to receipt of cash.				
16	The head of department approves all petty cash vouchers.				
17	A petty cash payment voucher is supported by receipts.				
18	Payment of IOUs out of petty cash is not permitted.				
19	Encashment of cheques out of petty cash is not permitted.				
20	Petty cash is reimbursed after the previous amount has been exhausted.				
21	Petty cash books are checked every time there is a request for the reimbursement of petty cash.				

In case there are other internal controls in the department please write them down.

- i).....
- ii).....
- iii).....



iv).....

In case there are other factors that make it difficult for you to operate within the internal control please write them below.

i).....

ii).....

iii).....

iv).....

Thank for your help in completing the above questionnaire.

Appendix 4 (vii) Budgetary control procedures.

	INTERNAL CONTROL	ALL THE TIME	SOMETIMES	NOT AWARE	NOT AT ALL
1	The University Council approves budgetary estimates and allocations.				
2	Expenditures out of the budget allocations are processed through Vote-book Section.				
3	Expenditures above the budget allocation are returned to departments.				
4	A vote-holder who exceeds the budgetary allocation in a particular period is asked to give an explanation.				

In case there are other internal controls in the department please write them down.

- i).....
- ii).....
- iii).....
- iv).....

In case there are other factors that make it difficult for you to operate within the internal control please write them below.

- i).....
- ii).....
- iii).....
- iv).....

Thank for your help in completing the above questionnaire.

Appendix 4 (viii) Custody and Disposal of assets.

	INTERNAL CONTROL	ALL THE TIME	SOMETIMES	NOT AWARE	NOT AT ALL
1	Departments identify any damaged, obsolete or excess assets and inventories within their custody and return them to Central Stores through a memorandum.				
2	Central Stores, with the help of technical staff, separate the items returned from the departments into scrap and reusable categories.				

3	The University's Board of Survey examines the items and makes recommendations for their disposal or transfer.				
4	Assets and inventories are kept under the strict control of a few designated employees.				
5	Assets and inventories are recorded as they are received.				
6	Assets and inventories are issued against a Stores Issue Note authorized by the in charge Central Stores.				
7	Physical inventory of stocks is taken annually.				
8	Physical inventory stock taking exercise is supervised by an independent person.				
9	The difference between the physical stock and the book record of asset and inventories are reconciled promptly.				
10	Inventory records maintained are not accessible to individuals other than those who are in charge of the assets or inventories.				

In case there are other internal controls in the department please write them down.

i).....

ii).....



iii).....

iv).....

In case there are other factors that make it difficult for you to operate within the internal control please write them below.

i).....

ii).....

iii).....

iv).....

Thank for your help in completing the above questionnaire.