

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**ASSESSING THE EFFECTIVENESS OF INTERNAL CONTROL SYSTEMS IN  
PUBLIC INSTITUTIONS – A CASE STUDY OF TAKORADI POLYTECHNIC**

**BY**

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## CERTIFICATION

I hereby declare that this submission is my own work towards the Commonwealth Executive Masters in Business Administration and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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## ABSTRACT

There have been several cases of embezzlement of funds and misuse of resources in public institutions though such institutions have several rules and control measures to guide their operations. The main purpose of the research was to assess the effectiveness of internal control systems at Takoradi Polytechnic. The specific objectives were to find out the internal control systems at Takoradi Polytechnic, employee's awareness of the internal control systems, effective implementation of the control systems, whether management is able to override the control systems and how consistent are the control systems with international standards. The descriptive research method was employed in the study. The population was all the administrative staff at the Polytechnic in the year 2010-2011. The sample was made up of 71 respondents comprising of 44 experts (finance, audit, procurement and stores) and 27 non-experts from other departments apart from the ones already mentioned. The purposive and the accidental sampling technique were used to sample the population and the main instruments used for the collection of data were the questionnaire and the interview guide. Some of the findings the research revealed are the existence of strict supervision, authorization and segregation of duties. The findings revealed that management does not communicate to the staff of new control policies introduced. Again the findings indicated that the control systems at the polytechnic are quite effective and are directed towards the detection and prevention of fraud and error. Some of the recommendations to the management of the Polytechnic include the embossment of the institution's logo on all assets and that management must keep the employees informed of new control policies introduced. Finally, the Polytechnic must invest in computerizing most of its manual operations.

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## LIST OF ABBREVIATIONS

AICPA	American Institute of Certified Public Accountants
ARIC	Audit Report Implementation Committee
CEO	Chief Executive Officer
CEPS	Custom Excise and Preventive Service
CFO	Chief Finance Officer
COSO	Committee of Sponsoring Organisation
MDA	Ministries, Departments and Agencies
MMDA	Metropolitan, Municipal and District Assembly
SAP	Statement on Auditing Procedures
SEC	Security Exchange Commission
SOX	Sarbanes – Oxley Act
SPSS	Statistical Package for Social Sciences



## DEDICATIONS

This Thesis is dedicated to my beloved family; Cornelian Buxton, Bright Amankwah, Isaac Gyamfi and Agnes Serwah.

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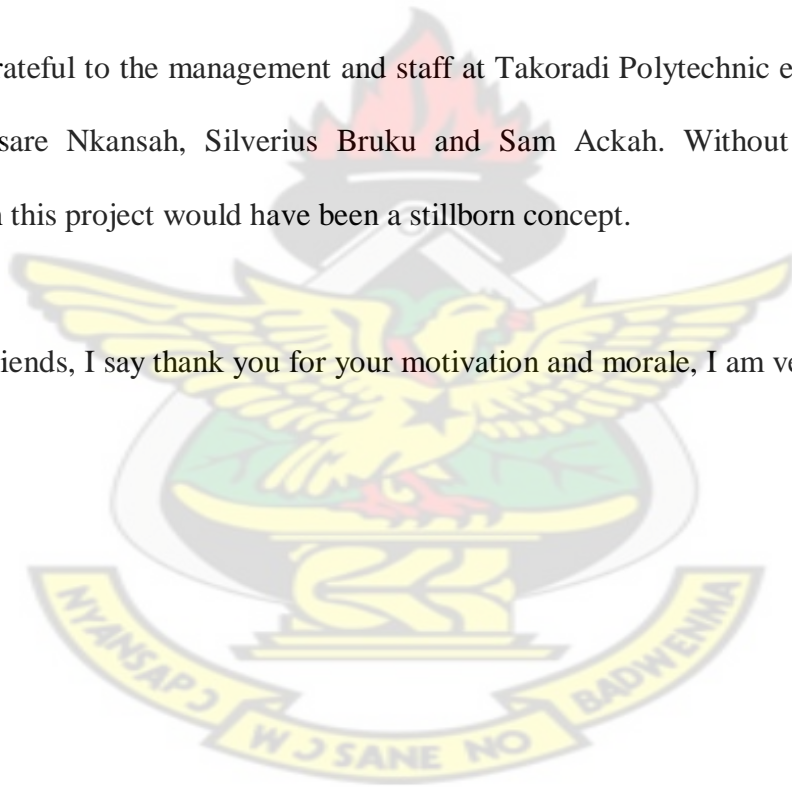
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## **CHAPTER ONE**

### **GENERAL INTRODUCTION**

#### **1.1 Background information of the Study**

The concept of internal control has experienced an interesting development. From the early 1900s to about 1936, the purpose of internal control was to protect assets particularly cash, from embezzlement or theft by employees. Audits were conducted comprehensively, and the focus was on the detection of fraud and clerical errors. When financial markets began to expand and became the primary source of capital for large public companies, interest in the fairness of the financial statements emerged, and irregularities, were detected and corrected on a timely basis (Tipgos, 2002). Important at this end was the design of procedures and processes as well as segregation of duties. However, in later years, the issue of qualification and training of employees became an important component of adequate or reliable internal control.

Brynes (1957), as quoted by Tipgos (2002), suggested three classifications or components of internal control: internal administration control, internal accounting control, and internal check. Internal administration control is concerned with managerial policies and procedures designed to promote operational efficiency and effectiveness. He further accentuated that internal accounting control refers to those controls that seek the accuracy and reliability of accounting data. Internal checks are those accounting procedures, statistical, and physical that safeguard assets against defalcations or other irregularities.

In view of the above, it can be emphasised that internal control exists in all sections of an organization and it was important for effective and efficient use of resources. Takoradi Polytechnic, which is an educational institution in the Western Region, needs a sound internal control system to effectively and efficiently use its resources to deliver quality education to citizens.

## **1.2 Statement of the Problem**

Public institutions are guided by rules and control measures to help them achieve their aims and objectives and also to curb corruption. There have been several reported cases of embezzlement of fund and misuse of resources in the public institutions, though these control measures are put in place especially in the ministries, Custom Excise and Preventive Service (CEPS), public educational institutions, just to mention a few. A typical example is what happened in Tema port where the state lost millions of cedis through tax evasion. One will even doubt whether public institutions are indeed guided by control measures. It is in light of these happenings that I have decided to research into the operations of Takoradi Polytechnic which is an educational institution to establish whether their internal controls are really checking their operations, to achieve the objectives for which the Polytechnic was established.

## **1.3 Research objectives**

The main objective of the study is to assess the effectiveness of internal control system at Takoradi Polytechnic.

Specifically the study aims to:

1. find out the internal control systems or policies at Takoradi Polytechnic.

2. find out if the employees are aware of the internal control systems or policies at Takoradi Polytechnic.
3. examine if the implementations of internal control systems or policies are effective at Takoradi Polytechnic.
4. find out if management at Takoradi Polytechnic is able to override the internal control systems or policies.
5. determine if the internal control systems are consistent with internationally acclaimed standards, example by Committee of Sponsoring Organisations (COSO).

#### **1.4 Research Questions**

The research seeks answers to the following questions:

1. What are the internal control systems or policies at Takoradi Polytechnic?
2. Are employees aware of the internal control systems at Takoradi Polytechnic?
3. How effective are the implementations of the internal control systems at Takoradi Polytechnic?
4. Is management at the Polytechnic able to override the control systems or policies?
5. How consistent are the internal control systems at Takoradi Polytechnic to international control standards?

#### **1.5 Significance of the Study**

Resources are scarce, as a result, every organization must ensure that effective and efficient utilization of its resource is achieved, to yield maximum benefits for its employees and the society. Takoradi Polytechnic is no exception, it represents a learning institution in the Western Region and has the responsibility to ensure that adequate

quality education is delivered to the citizens and residents of the region. The achievement of this objective, among other factors, is predicated on the existence of effective control systems.

Moreover, the study would assist the management of the institution to strengthen its internal control mechanism if there happens to be some weaknesses.

Finally, the study will serve as a contribution of knowledge to help future researchers on the same topic. Researchers may fall on this study as a secondary source of literature on their research work.

#### **1.6 The Scope of the study**

There are many public institutions in the country but the researcher chooses Takoradi Polytechnic because of proximity and time constraint. The Takoradi Polytechnic is an educational institution located in western part of Ghana. The institution has four schools namely; school of engineering, school of applied science, school of applied art and school of business. The institution also has a student population of six thousand eight hundred and thirty nine (6839) and staff population of nine hundred and thirty three (933), (Takoradi Polytechnic Planning Unit, 2011).

#### **1.7 Limitations of the study**

Among some of the difficulties faced by the researcher were the combination of the research work with my official work and the semester's course work.

Limited financial resources to undertake the study adequately was another pressing issue that impeded the progress of the research work.

Unwillingness on the part of some respondents to give out information which they consider delicate and private to the organization and the choice of words to represent what is actually in mind.

Despite the above limitations, the data collected was sufficient and appropriate to help make helpful suggestions and valid conclusions.

## **1.8 Organisation of the Study**

Every research must appropriately be organised to allow readers to follow the sequence of the study. This research work is divided into five chapters. Accordingly, chapter one of the study encompasses the background of the study, statement of the problem, the objectives of the study, research questions, significance, scope, limitation, and organization of the study.

The chapter two reviews existing related literature regarding internal controls to obtain detail knowledge on the topic. This chapter gives detailed of the definitions of internal control, importance of internal control, composition of internal control and the limitations of internal control systems.

The chapter three provides the methods and procedures employed in the study to achieve the research objectives. It includes the research design, the population, sample and sampling procedures, data collection, presentation and analysis procedures. In other words, the chapter three provides the road map used by the researcher to conduct the research.



Chapter four presents the analysis of data and discussions of the results. Finally, chapter five focuses on summary, conclusions and recommendations of the findings of the study. Conclusion is a section which attempts to give possible interpretations of the findings made in this research. Based on the findings and conclusion of the study, various recommendations were made to the management of Takoradi Polytechnic

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## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter reviewed the related literature on internal control systems or policies in organisations.

#### **2.1 HISTORICAL BACKGROUND OF INTERNAL CONTROL SYSTEMS**

The management of every organization has a fundamental responsibility to develop and maintain effective internal control. The proper stewardship of the organization's resources is an essential responsibility of both management and staff. Hence, management must ensure that the organization's programmes are implemented and resources are used efficiently and effectively to achieve desired objectives. The programmes must be implemented and resources used consistently with the organization's mission, in compliance with laws and regulations, and with minimal potential for waste, fraud, and mismanagement.

Effective internal control provides assurance that there are no significant weaknesses in the design or operation of internal control systems that could adversely affect the organization's ability to meet its objectives. It further ensures that the control system is capable of preventing or detecting weaknesses and fraud.

After the statement on Auditing Procedures (SAP) 29 was issued in 1958, the accounting profession started to focus on the components of internal control. Bryne (1957) as quoted by Tipgos (2002), accentuated that SAP 29's definition of internal control suggested three classifications that is, internal administrative control, internal accounting control, and

internal checks. Internal administrative control is concerned with managerial policies and procedures designed to promote operational efficiency and effectiveness. He further accentuated that internal accounting control refers to those controls that seek the accuracy and reliability of accounting data. Internal checks are those accounting procedures, statistical or physical, that safeguard assets against defalcations or other irregularities. According to Tipgos (2002), Byrne (1957), examples of physical internal checks include fences, gates, and watchmen. These classifications of internal control became a reference point for discussions of the concept, particularly in standard auditing texts, up to the issuance of the Committee of Sponsoring Organisations (COSO) Report in 1992.

As emphasized by Whittington and Pany (2004, pg. 230), in the 1970s and early 1980s, a number of fraudulent financial reporting were experienced in the corporate world. Consequently, some major accounting organisations including the American Institute of Certified Public Accountants (AICPA), the American Accounting Associations, Financial Executives Institutes, the Institute of Internal Auditors, Inc., and the Institute of Management Accountants sponsored the National Commission on Fraudulent Financial Reporting (Treadway Commission, 1985) to study the causal factors associated with fraudulent reporting. The guidance included criteria against which control systems can be assessed, as well as information on preparing management report on the effectiveness of internal controls. This report provided guidance to management and boards of directors, rather than to auditors. At the end of its sitting, the commission made several recommendations aimed at directly addressing conceptual issues and definitions of internal control. The focus of the Treadway commission (1985), was detection, not prevention, of any fraud within its definition of fraudulent reporting.

According to Committee of Sponsoring Organisations (1992), Treadway Commission's recommendations included the following:

1. That top management creates a control environment. That is, an atmosphere of control awareness within the organisation should be created to effectively handle employee fraud.
2. That the audit committee and the internal audit function should be intended as checks on management to create an atmosphere of controls within the organisation.
3. That an improvement in audit quality is required by having auditors take more responsibility for fraud detection. However, this recommendation ran into trouble as it could only be applied to some extent. The fact is that, this recommendation can fully be applied if the independent auditor could allow itself to be exposed to the possible resulting legal liability. The recent audit failures, particularly Enron, have shown that the accounting profession, despite its 100 years franchise to serve the public interest, does also pursue its own interest.
4. That improvement in laws and regulations are required to serve as deterrent to fraudulent financial reporting and to regulate the public accounting profession to facilitate the improvement of audit quality. Unfortunately, laws and regulations only show the perpetrators that crime does not pay. The perpetrators of the Enron scandal are serving prison sentences, but only after they have inflicted damage on many lives and the financial markets.
5. The business schools around the world include ethics in their curricula.

However, because of some shortcomings of the commission, principally its failure to authoritatively state in its recommendations that management is not above controls, fraudulent financial reporting continued as evidenced by the declaration of bankruptcies

by corporate giants Enron, Global Crossing and WorldCom during the period 2001 to 2002.

To remedy the situation, the U.S. Congress enacted the Sarbanes-Oxley Act (SOX) of 2002. The Act amend the U.S. securities and other laws in significant ways. The Act among other things, called for Chief Executive Officers (CEOs) and Chief Finance Officers (CFOs) to certify that their companies' annual and quarterly reports are accurate and not misleading, and that they have met their responsibility for evaluating internal controls. Also, one of the main objectives of Sarbanes-Oxley Act (SOX) is to ensure that managements do not override internal control (Guy, 2004).

Accordingly, in this chapter, literature relating to the definition of internal control, importance of internal control, components of internal control, and limitations of internal control systems were reviewed to establish the basis for an objective evaluation of the internal control systems at Takoradi Polytechnic.

## **2.2 Definition of Internal Control**

According to Whittington and Pany (2004), diversity of views have existed long ago regarding the meaning and objectives of internal control. Many people have interpreted the term internal control as steps taken by a business to prevent misappropriation of assets and fraudulent financial reporting. Others, while conceding that internal control is important for prevention of fraud, believed that internal control has an equal role in assuring control over operations.

In 1936, the American Institute of Certified Public Accountants (AICPA) issued a bulletin titled 'Examination of Financial Statements by Public Accountants', which defined internal control as “those measures and methods adopted within the organisation to safeguard the cash and other assets of the company as well as to check the clerical accuracy of the bookkeeping.” This definition reflects the concept of internal check that was popular at that time and was used to describe the practices followed within the accounting and finance function for the dual purpose of minimising clerical errors and protecting assets, particularly cash, from loss and theft.

In 1949, the AICPA Committee on Auditing Procedures issued a special report broadening the definition of internal control which included the plan of an organisation and all of the coordinated methods and measures adopted within the business to safeguard its assets, check the accuracy and reliability of its accounting data, promote operational efficiency, and encourage adherence to prescribed management policies.

According to Noordin (1997), as quoted in the International Journal of Government Auditing, the definition of internal control varies considerably. However, in its broadest sense, internal control refers to both administrative and accounting controls. Administrative control comprises the plan of the organization and all methods and procedures that facilitate management and control. Examples are departmental budgeting procedures and reports on performance. Accounting control comprises the methods and procedures that are mainly concerned with the authorization of transactions, safeguarding of assets, and accurate financial records.



The Committee of Sponsoring Organisations (COSO) through a study titled “Internal Control-Integrated Framework” defines internal control as: A process, effected by the entity’s board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories:

- Reliability of financial reporting
- Effectiveness and efficiency of operations
- Compliance with applicable laws and regulations.

The COSO’s definition of internal control emphasizes that internal control is a process and that the process is effected by individuals, not merely policy manuals, and forms. Also the inclusion of reasonable assurance in COSO’s definition of internal control signifies that internal control cannot realistically provide absolute assurance that the organization’s objectives would be achieved. The definition recognizes that the cost of an organization’s internal control should not exceed the benefits expected to be derived. COSO’s definition is comprehensive in that it addresses the achievement of objectives in the areas of financial reporting, operations, and compliance with laws and regulations. The definition covers the methods by which top management delegates authority and assigns responsibility for such function as selling, purchasing, accounting and production. Other concerns incorporated in the definition include program for preparing, verifying and distributing to various levels of management those current reports and analysis that enable executives to maintain control over the variety of activities and functions that are performed in large organisations.

Hevesi (2005) defines internal control as integration of activities, plans, attitudes, policies, and efforts of the people of an organisation working together to provide reasonable assurance that the organisation will achieve its objectives and mission. This



definition establishes that internal control affects every aspect of an organisation, all of its people, processes and infrastructure. Internal control is the basic element that permeates an organisation and not just a feature that is added on. The definition emphasizes that internal control incorporates the qualities of good management and is dependent upon people and would succeed or fail depending on the attention given it by the people. Further still, the definition underscores that internal control becomes effective when all the people and the surrounding environment work together to provide a level of comfort regarding the likelihood of achieving organizational objectives as well as its mission.

Millichamp (2002) defines internal control as the entire system of controls, financial and otherwise, established by the management to carry on the business of the enterprise in an orderly and efficient manner, to ensure adherence to management policies, safeguard the assets and secure as much as possible the completeness and accuracy of the records.

Many groups and organisations have published standards and guidelines on internal control and defined it in various ways. Each of those definitions has captured the basic concept of internal control using different words. The definitions are similar in recognizing internal control's extensive scope, its relationship to an organization's mission, and its dependence on people in the achievement of organizational objectives. In the opinion of the researcher, internal control can be defined as strategies, plans, policies, and procedures, whose implementation require the collective efforts of both management and employees in ensuring the achievement of the mission and objectives of the organisation.

### 2.3 Importance of Internal Control

Ghana Health Service Policies and Procedure Manual for its Internal Audit Division (1998) provide that internal control policies, and procedures, are tools that help programmes and financial managers to achieve desired result and safeguard the integrity of their programmes. Internal control provides guidance on using the range of tools at the disposal of managers to achieve desired programme results and meet the requirements if the accounting and administrative controls are in place. Such controls include programme, operational, and administrative areas as well as accounting and financial management.

Bolten (2004) in a citation to heads of executive departments of Federal Agencies on management's responsibility for internal control submitted that top management must establish controls that reasonably ensure that obligations and costs are in compliance with applicable laws. He also underscored that internal control should ensure that funds, property, and other assets are safeguarded against waste, loss, unauthorized use or misappropriation; revenues and expenditure are properly recorded and are related to the organization's operations to permit the preparation of accounts and reliable financial as well as statistical reports for the maintenance of accountability for assets. In view of Bolten (2004), it can be emphasized that top management annually must evaluate and report on the control and financial systems that protect the integrity of their organization. Top management must be cautious of the fact that internal control is not to be considered as an isolated management tool; rather, organizations should integrate their efforts to meet the requirements of sound internal control with other efforts to improve effectiveness and accountability. Thus, internal control should be an integral part of the entire cycle of planning, budgeting, management, accounting, and auditing. It should

support the effectiveness and the integrity of every step of the process and provide continual feedback to management.

Managers must carefully consider the appropriate balance between control and risk in their programs and operations. Too many controls can result in inefficient and ineffective operations; managers must ensure an appropriate balance between the strength of controls and the relative risk associated with particular programmes and operations. The benefits of controls should outweigh the cost. Organizations should consider both qualitative and quantitative factors when analyzing costs against benefits.

Bolten (2004) further underscored that internal control does not guarantee either the success of the organization, or the absence of waste, fraud, and mismanagement, but is a means of managing the risk associated with organizational programmes and operations.

Management is responsible for redesigning or improving upon controls. Management is also responsible for communicating the objectives of internal control and ensuring the organization is committed to sustaining an effective internal control environment. Appropriate internal control should be integrated into each system established by management to direct and guide its operations. As stated earlier, internal control applies to Programme, operational, and administrative areas as well as accounting and financial management.

Generally, identifying and implementing the specific procedures necessary to ensure effective internal control, and determining how to assess the effectiveness of those controls, is left to the discretion of the managers. While the procedures may vary from

organization to organization, management should have a clear and organized strategy with well defined documentation processes that contain an audit trail, verifiable results, and specific document retention periods so that someone not connected with the procedures can understand the assessment process.

As emphasized by Richards (2000), in a speech to members of American Institute of Certified Public Accountants on the importance of internal control in a National Conference on the securities industry, there is a need in this new and dynamic environment to ensure that attention to the fundamentals remains steady. In other words, it must be ensured that compliance efforts on internal controls remain strong, even under stress, strain of growth and competitive pressures. Richards further stressed that in a dynamic environment, organizations need to fully recognize that the key to success is investor confidence, and that long term investor confidence is won by firms who ensure that investors' interests come first and take precedence over all else. Firms who recognize this take steps to invest in and build the infrastructure to ensure that risks are monitored and measured, and that internal controls are vigorous and broad. Richards emphasized that the Security Exchange Commission (SEC) and other professional organizations applaud firms that invest in good people, new technology and new ideas, especially if such investments are intended to strengthen their infrastructure as well as internal control.

In the opinion of the researcher, good internal controls are essential to assuring the accomplishment of goals and objectives. They provide reliable financial reporting for management decisions. They ensure compliance with applicable laws and regulations to avoid the risk of public scandals. Good internal controls help to ensure efficient and

effective operations that accomplish the goals of the unit and still protect employees and assets. The importance of internal control cannot be over emphasized as the ability of every organization is to achieve effective and efficient operations, reliability of financial reporting, as well as compliance with applicable laws and regulations depend on the soundness of its internal control. Internal controls cannot eliminate all errors and irregularities, but they can alert management to potential problems.

## **2.4 Composition of Internal Control**

Internal control varies significantly from one organization to the other, depending on several factors, which include the size, nature of operation, and objectives of the organisation. The internal control of a Polytechnic differs from the internal control of a community college. In addition, internal control of a hospital differs from that of a communication company. However, whatever the size, nature of operations, and objectives might be, certain features are common to the internal control of all organizations. According to Whittington and Pany (2004), internal controls of any organization include the following:

- The control environment
- The risk assessment process
- Accounting system relevant to reliable financial reporting
- Control activities
- Monitoring of controls activities.

### **2.4.1 The Control Environment**

As emphasized by (Ghana Health Service Policies and Procedures Manual for the Internal Auditing Division of the service, 1998), "a strong general control environment serves to



reinforce control procedure employed in activities/functions". It also pointed out that, control environment refers to the competence and the philosophy of both administration and entire staff, as well as the way in which they carry out their duties.

The control environment is considered as the foundation for all the other elements of the internal control, providing discipline and structure. Control environment consists of the behaviour, alertness, policies, and actions of management and the board of directors regarding the entity's internal control and the importance attached to it by the entity.

Messier, Glover and Prawitt (2006) submitted that the control environment sets the tone of an organization and it influences the control consciousness of employees. It is the foundation for all other components of internal control providing discipline and structure. Castellano and Lightle (2005) also pointed out that the tone affects corporate culture by influencing how top management might react to situational pressures, such as meeting internal budget amounts or profit target. A strong control environment supported by an ethical tone at the top management level is the cornerstone of a system of internal control that prevents overriding of internal control.

Whittington and Pany (2000) submitted that several factors affect the control environment and they include:

- Integrity and ethical values
- Commitment to competence
- Audit committee of the board of directors
- Management's philosophy and operating style
- Organisational structure
- Assignment of authority and responsibility

- Human resource policies and practices.

### **(I) Integrity and Ethical Values**

Whittington and Pany (2004) pointed out that the effectiveness of internal control depends directly upon the communication and enforcement of integrity and values of personnel who are responsible for creating, administering and monitoring controls. Management must establish behavioural and ethical standards that discourage employees from engaging in act that would lead to dishonesty, unethical and illegal behaviours. To be effective, these standards must be effectively communicated by appropriate means, including official policies, codes of conduct and by setting examples. They further pointed out that, in order to succeed in reducing the incidence of improper behaviour, management must observe the following:

- Set the tone by example, demonstrate integrity and practice ethical behaviour.
- Communicate to all employees that the same behaviour is expected of them. Let each employee know that he or she has a responsibility to report known or suspected violations to a higher level in the organisation, and that violation will attract penalties.
- Reduce incentives and temptations that will encourage individuals to engage in dishonest, illegal or unethical acts. Incentives for undesirable behaviour include placing undue emphasis on short-term results or on meeting unrealistic performance target, and offering bonus and profit sharing plans that, in absence of necessary control, might encourage fraudulent financial reporting practices. Examples of temptations include the absence of factors regarded as essential for a good control environment; for example, the board of directors may be ineffective, or there may be a lack of clarity in the assignment of authority and responsibility.



Management can enforce ethical values by creating and maintaining a culture of honesty and high ethics; evaluating the risk of fraud and instituting processes, procedures and controls to mitigate those risks, and developing oversight process. To put it another way, Hevesi (2005) underscored that:

Management addresses the issue of ethical values when it encourages:

- Commitment to honesty and fairness
- Recognition of and adherence to laws and policies
- Respect for the organisation
- Leadership by example
- Commitment to excellence
- Respect for authority
- Respect for employees rights and
- Conformance with professional standards.

## **(II) Commitment to Competence**

Whittington and Pany (2000) stressed that personnel at every level of the organisation must possess the knowledge and skills needed to perform their jobs effectively. Commitment to competence includes consideration of both the knowledge and skills needed, and the mix of intelligence, training and experience required to develop that competence. Management must provide personnel with training programs on relevant topics in their respective areas of assignment. For example, meeting financial reporting objective in a large public company generally requires higher levels of competence on the part of Chief Financial Officer and accounting personnel than would be the case for a small privately owned company. Finally, formal job description or other means of

defining tasks that comprise particular jobs must exist and are effectively used while adequate staffing levels are maintained to effectively perform required tasks.

### **(III) Audit Committee of the Board of Directors**

The compositions of the Board of Directors and the Audit Committee and the manner in which they exercise their governance and oversight responsibilities have a major impact on the control environment. The combined code requires that all listed companies set in an Audit Committee.

Ideally:

- It should comprise at least three non-executive directors which are independent of management.
- The members should have a wide range of business and professional skills.
- The members should have good understanding of the business yet should have had no recent involvement with direct management of the business.
- The committee should have clear written terms of reference setting out its authority and its duties.

Clearly this can sometimes be difficult to achieve. However, the object is to create a committee which is competent to carry out its role, is independent and is free from bias. The key objective associated with the setting up of Audit Committees, from the point of view of corporate governance generally, is:

- To increase public confidence in the credibility and objectivity of published financial information.
- To assist the directors in carrying out their responsibilities for financial reporting.

- To strengthen the position of the external auditors by providing a channel of communication at board level without the constraint of any executive bias.

There are advantages to having an Audit Committee. These are:

- It can improve the quality of management accounting as they are able to criticize internal reporting, which is not necessarily the responsibility of the external auditors.
- It can facilitate communication between the directors, internal and external auditors and management.
- It can help minimize any conflicts between management and the auditors.
- It can facilitate the independence of the internal audit role if the internal Auditors report to the Audit Committee directly.

However, there are some disadvantages which the members of the Audit committee have to avoid:

- It can be seen that their purpose is to criticize or 'catch out' executive management.
- It can result in the perception, if not the reality, of a two – tier board.
- The non- executives can become too embroiled in detail and start to act like executive directors thus losing their independence.

In essence, the Audit committee is designed to act as an independent voice on the Board of Directors with regard to audit and corporate governance issues and can be a valuable asset, particularly with respect to maintaining the independence and integrity of the internal audit function (Millichamp & Taylor 2008, pp.18-19).

Ghana Health Service Internal Audit Division Manual (1998) submits that the primary responsibility of an Audit Committee is to exercise and maintain a watchful oversight of the financial reporting and auditing activities of the service on behalf of the Council. In the new corporate world, the audit committee of the board should be composed of independent directors who are not officers or employees of the organisation and do not have other relations that impair their independence. This enables the audit committee to be effective at overseeing the quality of the organisation's financial reports, and act as deterrent to management override of control.

#### **(IV) Management Philosophy and Operating Style**

According to Whittington and Pany (2004), management philosophy and operating style vary from one organisation to another. Some managers are aggressive in financial reporting. They create pressure and place great emphasis on meeting or exceeding earning projections. Such management may undertake activity of high risk with the intent of reaping high return. Others are conservative and risk averse. These differing philosophies and operating styles may have impact on the overall reliability of the financial statements.

Characteristics that form part of a management's philosophy and operating style and which have an impact on the control environment includes the management's:

- approach to the taking of business risks
- reliance on informal face-to-face contacts with key managers versus a formal system of written policies, performance indicators and exception reports
- attitudes and actions toward financial reporting
- conservative or aggressive selection of accounting principles from available alternatives

- conscientiousness and conservatism in developing accounting estimates
- attitude towards information processing, accounting functions and personnel.

Management that appreciates effective controls prefers written policies, performance reports and exception reports as a way of controlling its various operating activities as opposed to verbal policies and face-to-face contact with employees.

## **(V) Organisational Structure**

Whittington and Pany (2000) pointed out that an organisational structure contributes to an entity's ability to meet its objectives by providing an overall framework for planning, executing, controlling and monitoring the entity's activities. Developing an organisational structure for an entity involves determining the key areas of authority and responsibility and appropriate lines of reporting. The assignment of responsibility is an extension of an organisational structure. It includes the particulars of how and to whom authority and responsibility are assigned, and should enable each individual to know:

- how his or her actions contributes to the achievement of the entity's objectives
- for what he or she will be held accountable.

The organisational structure helps to separate responsibilities for authorization of transactions, record keeping for transactions and custody of assets. It is a structure for assigning ownership of information including who is authorized to initiate or change transactions. Organisational structure facilitates the assignment of authority to employees throughout the entity relating to their specific job functions. Through the organisational structure, Job descriptions containing specific references to control related responsibilities are made available to employees thus empowering them to correct problems or implement improvements when it is appropriate.

## **(VI) Human Resource Policies and Practices**

A fundamental concept of internal control is that it is implemented by people. For the accounting and the internal control systems to be effective, human resource policies and practices must ensure that entity personnel possess the expected integrity, ethical values and competence.

Such practices include:

- developing appropriate recruiting policies
- screening prospective employees
- developing training policies that communicate prospective roles and responsibilities
- exercising disciplinary action for violation of expected behaviour
- evaluating, counselling and promoting people based on periodic performance appraisals
- implementing a compensation programme that motivates and rewards superior performance while avoiding disincentives to ethical behaviour

Thus, management's policies and practices for hiring, training, evaluating, counselling promoting, and compensating employees have a significant impact on the effectiveness of control environment.

### **2.4.2 The Risk Assessment Process**

Every entity faces a variety of risks from external and internal sources that must be assessed. A precondition to risk assessment is establishment of objectives, linked at different levels and internally consistent. Risk assessment is the identification and analysis of relevant risks to achievement of the objectives, forming a basis for determining how the risk should be managed. Because economic, industry, regulatory and



operating conditions will continue to change, mechanisms are needed to identify and deal with the special risks associated with change (Committee of Sponsoring Organisations, 1992).

In a conference of internal auditors, Bies (2003) emphasized that effective risk management needs effective internal control. Without effective control and systematic approach to identifying, assessing, monitoring, and mitigating excessive risk taking effort by the organization to manage risk will be daunted.

According to Bies (2003), risk assessment involves evaluation of the susceptibility of a component of a programmatic or administrative area to waste, fraud, abuse or mismanagement. It is a screening device that facilitates rapid identification of potential problems that may require preventive action. Through risk assessments, risk area is ranked in priority order according to the probability and severity of adverse outcomes.

Bies further emphasized that risk assessment process rates risk area as high, medium or low risk. On the basis of these ratings and the probability of severity of adverse outcomes, an annual plan is prepared, prioritizing and identifying the risk management review to be conducted. Risk management reviews are detailed evaluation of the system of management controls used by a particular function or activity. By testing these controls, risk management reviews determine whether controls are adequate and are working as intended, and whether new controls are needed. And if a risk assessment or risk management review identify any weakness, corrective action should be taken immediately or a corrective action plan should be developed indicating what corrective steps will be taken, and when. Bies submitted that managers should define the control



environment (e.g programmes, operations, or financial reporting) and then perform risk assessments to identify the most significant areas within that environment in which to place or enhance internal control. The risk assessment is a critical step in the process to determine the extent of controls. Once significant areas have been identified, control activities should be implemented. Continuous monitoring and testing should help to identify poorly designed or ineffective controls and should be reported upon periodically.

#### **2.4.3 Accounting System to Relevant Reliable Financial Reporting**

Gyasi (2005) pointed out that accounting information system provides information about the financial resources to managers at all levels to facilitate sound economic decision making. The accounting system, which forms an integral part of the overall information system, provides managers with accurate, relevant, reliable, and comprehensive information needed to make timely and effective decisions for planning, directing, and controlling activities regarding their organizations.

Noordin (1997) as quoted by International journal for Government Auditing in Pakistan, submitted that regardless of an entity's size or type, and regardless of whether it is held privately or publicly, managers and accountants should be alert to the rudiments of accounting systems and controls. Accounting records are kept for a variety of purposes, and the major purpose is to help managers to operate their entities more efficiently and effectively. For instance, records of receivables and payables must be created for transaction with customers and creditors, and cash disbursements and receipts must be traced to the individual accounts. Even the simplest of organizations must have some kind of records. Any organization that fails to keep reliable accounting records is bound to face intolerable chaos in the end.

An accounting system is a set of records, procedures, and equipment that routinely deals with the events affecting the financial performance and position of the entity. The focus of the accounting system is on repetitive, voluminous transactions, which almost fall into four categories:

- Cash disbursement
- Cash receipts
- Purchasers of goods and services, including employee payroll
- Sales or rendering of goods and services.

A good accounting system comprises the methods and procedures that are mainly concerned with the authorization of transactions, the safeguarding of assets, completeness of documentation, and timely reliable financial reporting.

Generally, authorization is usually found in writing. It often sets definite limits on what costs to charge, on what price to charge, on what credit limits to grant to customers, and so forth. On the other hand, specific authorization usually means that superior manager must permit authorization. For example, approval from the board of directors may be required regarding expenditure for capital assets in excess of a specific limit but disbursement of specific amount would require the approval of authorities who are charged with the day to day running of the organization.

Assets, especially fixed assets which normally constitute greater percentage of total asset, need to be properly safeguarded. Physical and other controls are required for proper safeguarding of assets. Documents and records vary considerably, from source documents

like sales invoice and purchase orders to journals and ledgers but all require immediate and complete recording. Everyone involved in the recording functions of accounting is encouraged to ensure pre-numbering of source documents so as to achieve proper documentation. Also for proper documentation, devices such as cash register and locked compartments invoice-writing machines can be used as they have designed forms that facilitate easy recording. Immediate recording is especially important for handling cash. Most organisations have procedure manuals, which specify the flow of documents and provide information and instruction to facilitate adequate record keeping. Routine and automatic checks are major ways of attaining proper procedures. Good accounting controls help maximize efficiency; they help minimize waste, unintentional errors and fraud.

Bolten (2004) also stated that pertinent and reliable accounting information must be identified, captured and communicated in a form and timeframe that enable people to carry out their responsibilities. Accounting information systems produce reports containing operational and compliance-related information that make it possible to run and control the organisation. Effective communication of financial reports also must occur in a broader sense, flowing down, across and up the organisation.

Ricchiute (2001) underscored that for any organisation to operate efficiently, that organisation must be able to identify, capture and communicate both external and internal information in a form and period that will afford the employees to perform their assigned duties. Proper communication involves providing employees with an understanding of their individual roles and responsibilities. Open communication channels are essential for proper functioning of an information system. Personnel that process information must

understand how their activities relate to the work of others and the importance of reporting exceptions and other unusual items to appropriate management.

#### **2.4.4 Control Activities**

According to Ricchiute (2001), control activities are those policies and procedures, in addition to the control environment and the information system that management establishes to provide reasonable assurance that objectives are achieved. To put it differently, control activities are policies and procedures designed to ensure that management directives are effectively implemented. These policies and procedures promote actions that address risk that face the organization. They encompass a range of activities as diverse as approvals, authorizations, verifications, reconciliations, reviews of operating performance, security of assets, and segregation of duties.

Ricchiute (2001) further stated that Control activities identify breakdowns in control, provide guidance for timely responses, and help achieve the entity's objectives. Wide ranges of control activities are performed in an organization.

They include:

- Performance reviews
- Information processing control
- Physical control
- Segregation of duties.

#### **(I) Performance Review**

Performance reviews involve reviews of actual performance as compared to budget, forecast, and prior period of performance by relating different sets of data to one another,

and performing overall reviews of performance. This process provides management with overall indications of whether personnel at various levels are effectively pursuing the objectives of the organization. By investigating the reasons for non-performance, management is placed in better position to effect timely changes in strategies and plans, or take appropriate actions.

## **(II) Information Processing Control**

Management carries out various activities as means of ensuring accuracy, completeness, and authorization of activities. In most cases, management institutes two general categories of information processing controls. The two information processing controls include general control activities, which apply to all information procedures, and application control activities, which apply to a particular activity. Information processing controls ensure proper authorization of all transactions. Authorisation of transactions may be general or specific. General authorization occurs when management establishes criteria for acceptance of certain types of transactions. For example, the Polytechnic may establish a policy for granting leave. Accordingly, only employees who meet the criterion can be granted study leave. Specific authorization occurs when events are authorized on individual basis. Pre-numbered forms and documents are also used to exercise control over information processing.

## **(III) Physical Controls**

For effective control, management establishes physical security over both records and assets. Activities that safeguard records may include maintaining control at all times over unused pre – numbered documents, as well as other journals and ledgers, and restricting access to computer programmes and files. Under assets control systems, only authorized



individuals are allowed access to entity's valuable assets. Safe, locks, fences, and guards are used to control direct access to assets. Periodic reconciliations are carried out to compare accounting records with physical assets on hand. If any discrepancies are detected, investigation is conducted to uncover weakness either in procedures for safeguarding assets or in maintaining the related accounting records to ensure effective control. The reconciliations are necessary to detect waste, loss, or theft of assets.

#### **(IV) Segregation Duties**

One of the objectives of internal control is to ensure that no one department or person handles all aspects of a transaction from the beginning to the end. To put it differently, no one individual should be allowed to handle more than one of the following functions: authorization, recording, and maintaining custody over assets. The ability of management to ensure segregation of duties is a major success factor in maintaining effective internal control.

#### **2.4.5 Monitoring Control Activities**

According to Whittington and Pany (2004), monitoring of controls is a process involving assessment of the quality of internal control over time. Monitoring of controls incorporates all management oversight of the organization's systems of internal control. It is a process to assess the quality of internal control performance over time. Monitoring makes it possible for management to determine whether any modification is necessary. Monitoring can be achieved through performing regular supervisory and management activity, such as reviewing the reasonableness of management reports as well as continuous monitoring of other reports. Non-routine evaluations such as periodic audits by internal auditors are vital to effective internal control.



## **2.5 Audit Report Implementation Committee**

Section 30(1) of the Audit Service Act, 2000 (Act 584) requires all institutions subject to auditing by Auditor General, including Ministries, Departments and Agencies (MDAs) and Metropolitan, Municipal and District Assemblies (MMDAs) to set up an Audit Report Implementation Committee (ARIC) to ensure the implementation of the recommendations of audit reports. Section 16(8) of the Internal Audit Agency Act, 2003 (Act 658) also reiterated the need for all MDAs and MMDAs to comply with the section 30(1) of Act 584 and establish ARIC. The framework for professional practice of Internal Auditing issued by the Institute of Internal Auditors also requires organisations to have effective Audit Committees.

An ARIC is a statutory and high level independent corporate governance committee in the public sector financial management system. The committee will, among other things, promote the effective functioning of Internal Audit Units and follow up on the implementation of audit recommendations to ensure efficient and effective utilisation of public resources in line with the objectives of the Public Financial Management Reform Programmes. An ARIC shall have unrestricted access to all information, documents, personnel and adequate resources in order to fulfil its responsibilities. It is therefore important that the Governing Board of the Assembly supports and endorses the ARIC so that its operations are independent of management.

### **2.5.1 Roles and Responsibilities of ARIC**

An ARIC is mandated to;

- Ensure the implementation in all audit reports of every assembly.
- Follow-up Auditor General and Public Accounts Committee's recommendations as well as recommendations in internal audit reports.

An ARIC may provide advise to management on the following;

- Risk management
- Internal control
- Compliance with laws, regulations and ethical standards.

## **2.6 Limitations of Internal Controls**

According to Millichamp and Taylor (2008), internal control is essential feature for any organization that is run efficiently. However, it is important to realize that internal controls have inherent limitations which include:

- A requirement that the cost of an internal control is not disproportionate to the potential loss which may result from its absence.
- Internal controls tend to be directed at routine transactions. The one-off or unusual transaction tends not to be the subject of internal control.
- Potential human error caused by stress of work load, alcohol, carelessness, distraction, mistake of judgment, apathy and the misunderstanding of instructions.
- The possibility of circumvention of controls either alone or through collusion with parties outside or inside the entity.
- Abuse of responsibility by senior managers resulting in management override of controls.
- Fraud.
- Changes in environment making controls inadequate.
- Poor or excessive internal controls reduce productivity, increase the complexity of processing transactions, increase the time required to process transactions and add no value to the activities.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter presents the method that was followed in conducting the research. It deals with the research design, study population, sample and sampling procedures, the procedures followed in the data collection, data presentation and data analysis.

#### **3.1 Research Design**

The study looked into the effectiveness of internal control systems at Takoradi Polytechnic. The descriptive research method was employed in the study. This was because the study attempts to give a clear picture of how effective the control systems were in the institution. The researcher chose the descriptive research because it helps to describe the actual condition of a situation at a particular point in time. Trochim (2006) espoused that descriptive research is a method that describes data and characteristics concerning the population or the phenomena under study. Again, the descriptive research methods also have the advantage of producing objective results.

#### **3.2 Study population**

Population of a study is the elements or people to be studied and from whom data will be obtained. Again, it was the entire group of persons that have the characteristics that interest the researcher. The population for the study included all the administrative staff at Takoradi Polytechnic in the year 2010-2011. Staff at Takoradi Polytechnic can be categorized into senior members, senior staff and junior staff. Aside these categorisations, the staff can also be grouped into academic and administrative staff. Takoradi Polytechnic currently have a staff population of nine hundred and thirty three (933), out of which five

hundred and forty (540) are administrative staff, and three hundred and ninety three (393) being academic staff (Takoradi Polytechnic Planning Unit, 2011). As the study aims at evaluating the effectiveness of internal controls at the Polytechnic, the researcher assumed that the information sought could be obtained from the administrative staff.

### 3.3 Sample

It was the intention of the study to use the entire population which was the administrative staff at Takoradi Polytechnic. However, due to limited time frame and financial constraint, a sample was selected. Sampling is simply the selection of a part of a group with the view of obtaining information about the population. Being an evaluative study, the information needed could be obtained from those who were involved in monitoring and enforcing controls at the Polytechnic. Accordingly, the finance, internal audit, procurement and stores departments were considered for the study. Moreover, the researcher decided to cover all the staff under the selected or accessible departments. This was so, because the staff at the selected departments appeared to be small in number and the researcher wanted to cover a sizeable number of respondents.

**Table 3.1 Expert departments and number of staff**

Department	Number of staff
Finance	27
Audit	10
Procurement	6
Stores	7
<b>Total</b>	<b>50</b>

Source: Takoradi Polytechnic Planning Unit, 2011.

Furthermore, twenty seven (27) workers, representing five percent (5%) of the administrative staff who were not members of the expert departments were also selected to be part of the sample. The study chose this number so that detailed interview could be conducted on them. The reason for including these members was to compare their views with those involved in monitoring and enforcing control in the institution. This helped the study to have a true picture of the effectiveness of internal control systems in the institution. In all, the sample was made up of seventy one (71) respondents representing approximately thirteen percent (13%) of the administrative staff.

### **3.4 Sampling Procedure**

The way the sample was chosen was known as sample procedure. The researcher adopted the purposive sampling and accidental sampling technique in the conduct of the study. The purposive sampling method was used for the expert departments (audit, finance, procurement and stores) because they were the key departments responsible for monitoring and enforcing controls, and have the information sought by the study. In purposive sampling, the selection of the sample was based on judgment of the study such that those selected are the key individuals who can give the information required for the study.

On the other hand, the researcher selected twenty seven (27) administrative staff members who did not belong to the expert departments by the use of accidental sampling technique. The researcher used this technique because the respondents were asked general questions which did not require much experience. With this technique, the study questioned the people as and when he approached them in the institution.



### **3.5 Data Collection**

#### **3.5.1 Types of Data**

The study used both primary data and secondary sources to gather information from respondents. Primary data were collected from direct interview and administering of questionnaires while secondary sources of data were collected by reviewing existing texts written by different writers on internal controls, magazines and internet sources.

#### **3.5.2 Data Collection Methods**

The methods used for the collection of primary data were questionnaires and face to face interview. The study used the questionnaire method for the expert departments. This was so, because the questionnaire method was said to be stable and had a uniform measure without variation. Again, answers to questions on the questionnaire enabled the study to find answers to research problems and also to achieve the objectives of the study. Out of fifty (50) questionnaires distributed, forty four (44) were returned representing eighty eight (88) percent collection rate.

Moreover, the study used the structured interview method for the five (5) percent administrative staff members who did not belong to the expert departments. Again, the study conducted the face to face interview personally and in the language of the respondents' choice. Since they were not experts, certain key terms had to be explained to them so that their responses achieved the aims of the study and responses recorded by the study as exactly as possible. The interview method was employed because the study wanted respondents to freely express themselves and to compare their responses with that of expert respondents.



### **3.5.3 Instrumentation**

The main instruments used for the collection of primary data were the questionnaire and interview guide. The items in the questionnaire were as well used as interview guide, but those questions were differentiated from the questionnaire by the use of asterisks (\*). The study used both opened-ended and closed-ended sets of questions. The study used the opened-ended questions because he wanted to allow the respondents to freely bring out their views and closed-ended because he wanted to guide respondents with their responses. The study administered the questionnaires to the expert respondents personally.

The 38 questions in the questionnaire were in the form divided into six sections: A, B, C, D, E and F. Section 'A' consisted of questions on respondent's demographic data while section 'B' related to the internal control systems or policies at Takoradi Polytechnic. The section 'C' consisted of questions covering the second research question of employee's awareness of the internal control systems at Takoradi Polytechnic. Section 'D' consisted of questions on effective implementation of control system at Takoradi Polytechnic. Section 'E' consisted of the fourth research question of management's ability to override the control systems. The final section, section 'F' related to the consistency of the control systems to internationally acclaimed standards. Sample of questionnaires are shown in the appendix of the study.

## **3.6 Data Analysis and Presentation**

### **3.6.1 Analysis Procedures**

The main purpose of collecting data in a study was to find solution(s) to research problems. Raw form of data does not make much meaning, hence the need for analysis.

Analysis of data allowed the study to assess and evaluate findings to arrive at some valid, meaningful and relevant conclusions. The retrieved questionnaires were critically read through to check for consistency in responses. The questionnaires were then coded so that similar responses were coded as one to aid easy analysis. Responses from respondents interviewed were also coded to aid the analysis. Statistical Package for Social Sciences (SPSS) was used to analyse and present the data.

### **3.6.2 Presentation Devices**

Statistical tools such as frequency tables and percentages were used to present the data. Tables and figures were used to present the responses. However, with the non-experts, their responses were only discussed and compared with the expert responses without tables with the exception of their biodata. The frequency table provided the synopsis of the data for easy understanding and comparison. The Percentages addressed the relative frequencies of the data, and the tables and figures were used to show diagrammatic representation of the responses.

## CHAPTER FOUR

### DATA ANALYSIS AND DISCUSSION OF RESULTS

#### 4.0 Introduction

This chapter deals with the presentation, analysis and discussion of results collected from staff at Takoradi Polytechnic. Bell (2004) reiterated that regardless of the means used to collect data, the raw data collected serve little or no purpose unless analysed and interpreted. The study used tables and figures to illustrate and support findings.

#### 4.1 DEMOGRAPHIC DATA OF RESPONDENTS

**TABLE 4.1 SEX OF RESPONDENTS**

EXPERT				NON- EXPERT		
Sex	Frequency	%	Cum.%	Frequency	%	Cum.%
Male	32	72.7	72.7	20	74.1	74.1
Female	12	27.3	100.0	7	25.9	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>		<b>27</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.1 above showed that, majority of the expert respondents (72%) were males, as compared to only (27.3%) of the expert respondents been females. Similarly, (74.1%) of the non-expert respondents (ie majority) interviewed were males, while (25.9%) of the non-expert respondents interviewed were females. This contributed in espousing a fair view of how different sexes assessed the control systems at Takoradi Polytechnic.

**TABLE 4.2 CATEGORY OF RESPONDENTS**

EXPERT				NON-EXPERT		
Category	Frequency	%	Cum.%	Frequency	%	Cum.%
Junior Staff	0	0	0	7	25.9	25.9
Senior Staff	33	75.0	75.0	15	55.6	81.5
Senior Member	11	25.0	100.0	5	18.5	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>		<b>27</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.2 above showed that, out of 44 respondents, about 75.0 percent of the expert respondents (majority) belonged to the senior staff, as compared to 25.0 percent of the remaining expert respondents who were senior members. However, none of the respondents belonged to the junior staff. On the other hand, out of 27 respondents interviewed, 55.6 percent belonged to the senior staff while 25.9 and 18.5 percent belonged to the junior staff and senior member respectively. The category of the respondents helped in how the various categories understood the control systems in the institution. Since majority of respondents were senior staff, their views were good assessment of the control systems at Takoradi Polytechnic.

**TABLE 4.2.3 LEVEL OF EDUCATION OF RESPONDENTS**

	EXPERT			NON-EXPERT		
	Frequency	%	Cum.%	Frequency	%	Cum.%
H.N.D	5	11.4	11.4	6	22.2	22.2
1 <sup>ST</sup> Degree	30	68.2	79.6	13	48.2	70.4
2 <sup>nd</sup> Degree	7	15.9	95.5	5	18.5	88.9
Professional	2	4.5	100.0	3	11.1	100
<b>Total</b>	<b>44</b>	<b>100.0</b>		<b>27</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

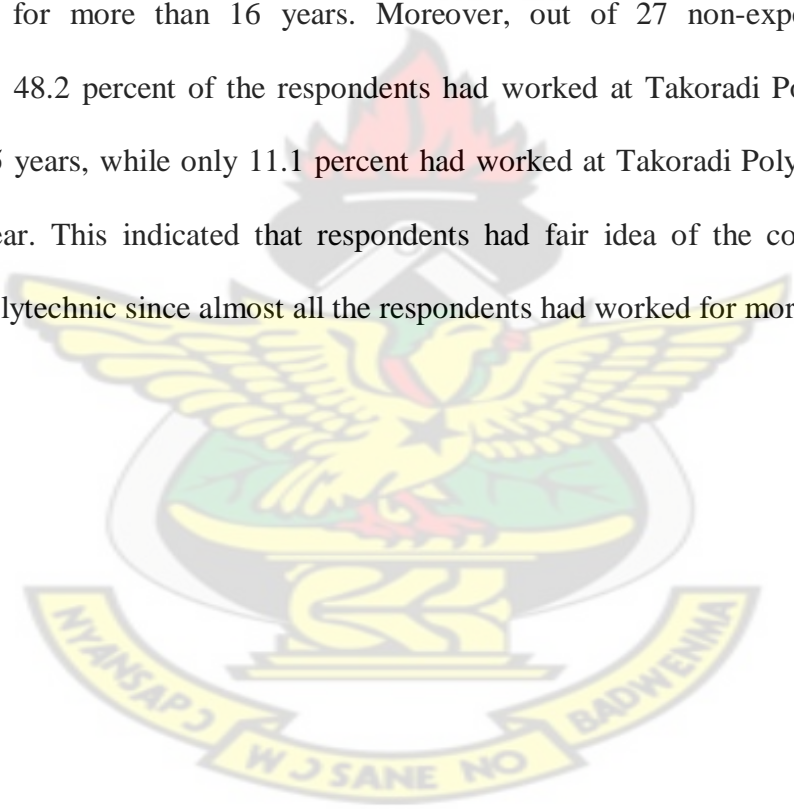
Table 4.3 above showed that, 68.2 percent of the expert respondents (majority) were first degree holders as compared to 4.5 percent of the expert respondents who had professional certificates. On the other hand, out of 27 respondents interviewed, 48.2 percent were first degree holders, while 11.1 percent were holders of professional certificate. This helped to get accurate responses because almost all the respondents were learned and had fair ideas on the research topic.

### **Departments of respondents**

Out of 44 respondents, about 56.8 percent of the expert respondents (majority) worked in the finance department, as compared to 11.4 percent of the expert respondents who worked in the procurement department. Moreover, 18.2 percent of the expert respondents worked in the audit department, while 13.6 percent of the expert respondents worked in the stores department. On the other hand, out of 27 respondents interviewed, 22.2, 22.2, 18.6, 14.8, 11.1 and 11.1 percent were with the Registry, Admission, Development, Planning, Library and Human Resource department respectively. It can be concluded that,

the majority of the respondents were with the finance department and the audit department. The indication of this was that most of the respondents worked in the departments responsible for monitoring and enforcing controls.

Table 4.4 below showed that, out of 44 respondents, 43.2 percent (majority) of the expert respondents had worked at Takoradi Polytechnic for a range of 1-5 years, as compared to 4.5 percent of the expert respondents who had worked at Takoradi Polytechnic for less than one year. However, none of the expert respondents had worked at Takoradi Polytechnic for more than 16 years. Moreover, out of 27 non-expert respondents interviewed, 48.2 percent of the respondents had worked at Takoradi Polytechnic for a range of 1-5 years, while only 11.1 percent had worked at Takoradi Polytechnic for less than one year. This indicated that respondents had fair idea of the control system at Takoradi Polytechnic since almost all the respondents had worked for more than one year.



**TABLE 4.4 THE LENGHT OF SERVICE WITH THE INSTITUTION**



EXPERT				NON EXPERT		
Years	Frequency	%	Cum.%	Frequency	%	Cum.%
Below 1 yr	2	4.5	4.5	3	11.1	11.1
1-5 yrs	19	43.2	47.7	13	48.2	59.3
6-10 yrs	14	31.8	79.5	5	18.5	77.8
11-15 yrs	9	20.5	100.0	4	14.8	92.6
16-20 yrs	0	0		2	7.4	100.0
Above 20yrs	0	0				
<b>Total</b>	<b>44</b>	<b>100.0</b>		<b>27</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.5 below showed that, out of 44 of expert respondents, 65.9 percent of the respondents (majority) agreed that staff activities were strictly supervised by their heads of department, as compared to only 2.3 percent who strongly disagreed that staff activities were strictly supervised by their heads of departments. On the other hand, 22.7 percent of the respondents strongly agreed that staff activities were strictly supervised by their heads of department, while 9.1 percent of the respondents disagreed that staff activities were strictly supervised by their heads of department. Moreover, 20 out of 27 non-expert respondents interviewed confirmed that staff activities were strictly supervised by their heads of department. This was an indication that, staff activities were strictly supervised by their heads of department at Takoradi Polytechnic.

**TABLE 4.5 SUPERVISION OF STAFF BY HEADS OF DEPARTMENT**

	Frequency	Percent	Cumulative Percent
Strongly Agree	10	22.7	22.7
Agree	29	65.9	88.6
Strongly Disagree	1	2.3	90.9
Disagree	4	9.1	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

**TABLE 4.6 EMBOSSEMENT OF LOGO ON ALL ASSETS**

	Frequency	Percent	Cumulative Percent
Strongly Agree	6	13.6	13.6
Agree	8	18.2	31.8
Strongly Disagree	25	56.8	88.6
Disagree	5	11.4	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.6 above showed that, 56.8 percent of the respondents (majority) strongly disagreed that Takoradi Polytechnic had its logo embossed on all assets, as compared to 11.4 percent of the respondent who disagreed that Takoradi Polytechnic had its logo embossed on all assets. On the other hand, 18.2 percent of the respondents agreed that Takoradi Polytechnic had its logo embossed on all assets, while 13.6 percent of the respondents strongly agreed that Takoradi Polytechnic had its logo embossed on all assets. Moreover, 18 out of the 27 respondents interviewed confirmed that Takoradi

Polytechnic had not embossed its logo on every asset. This indicated that, Takoradi Polytechnic had not embossed its logo on every asset.

**TABLE 4.7 AUTHORISATION OF PAYMENTS BY THE RECTOR**

	Frequency	Percent	Cumulative Percent
Strongly Agree	13	29.5	29.5
Agree	20	45.5	75.0
Strongly Disagree	2	4.5	79.5
Disagree	9	20.5	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.7 above showed that, 45.5 percent of the respondents (majority) agreed that the rector authorised all payments after approval by the internal auditor, as compared to 4.5 percent of the respondents who strongly disagreed that the rector authorised all payments after approval by the internal auditor. On the other hand, 29.5 percent of the respondents strongly agreed that the rector authorised all payments after approval by the internal auditor, while 20.5 percent of the respondents disagreed that the rector authorised all payments after approval by the internal auditor. This indicated that all payments were authorized by the rector after approval by internal auditor.

**TABLE 4.8 ADEQUATE SEGREGATION OF STAFF DUTIES**

	Frequency	Percent	Cumulative Percent
Strongly Agree	8	18.2	18.2
Agree	29	65.9	84.1
Strongly Disagree	4	9.1	93.2
Disagree	3	6.8	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.8 showed that, 65.9 percent of the respondents (majority) agreed that the duties of staff were adequately segregated, as compared to 6.8 percent of the respondents who disagreed that duties of staff were adequately segregated. On the other hand, 18.2 percent of the respondents strongly agreed that duties of staff were adequately segregated, while 9.1 percent of the respondents strongly disagreed that duties of staff were adequately segregated. Similarly, 17 out the 27 respondents interviewed also confirmed that duties of staff were adequately segregated. However, from Appendix IV, the coefficient of variation for segregation of staff duties gave a value of 36.5 percent. This signifies that segregation of staff duties at Takoradi Polytechnic was inadequate.

**TABLE 4.9 SIGNATORY TO THE DEPARTMENT'S ACCOUNT**

	Frequency	Percent	Cumulative Percent
Strongly Agree	1	2.3	2.3
Agree	3	6.8	9.1
Strongly Disagree	30	68.2	77.3
Disagree	8	18.2	95.5
No response	2	4.5	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.9 above showed that, 68.2 percent of the respondents (majority) strongly disagreed that there was only one signatory to a department's account, as compared to only 2.3 percent of the respondent who strongly agreed that there was only one signatory to a department's account. On the other hand, 18.2 percent of the respondents disagreed that there was only one signatory to a department's account, while 6.8 percent of the respondents agreed that there was only one signatory to a department's account. However, 4.5 percent of the respondents did not give any response. This indicated that, more than one person were signatory to a department's account at Takoradi Polytechnic.

**TABLE 4.10 PAYMENT VOUCHERS SUPPORTED WITH RECEIPTS**

	Frequency	Percent	Cumulative Percent
Strongly Agree	7	15.9	15.9
Agree	35	79.5	95.5
Strongly Disagree	0	0	0
Disagree	2	4.5	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.10 above showed that, 79.5 percent of the respondents (majority) agreed that payment vouchers were supported with receipts, as compared to only 4.5 percent of the respondents who disagreed that payment vouchers were supported with receipts. On the other hand, 15.9 percent of the respondents strongly agreed that payment vouchers were supported with receipts. However, none of the respondents strongly disagreed that payment vouchers were supported with receipts. This indicated that, payment vouchers were supported with receipts with amount spelt out to ensure that all monies given out were adequately accounted for at Takoradi Polytechnic.

**TABLE 4.11 PROCEDURES TO ENSURE ASSETS ADDITIONS, DISPOSALS AND TRANSFERS**

	Frequency	Percent	Cumulative Percent
Strongly Agree	2	4.5	4.5
Agree	12	27.3	31.8
Strongly Disagree	4	9.1	40.9
Disagree	26	59.1	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*



Table 4.11 above showed that, 59.1 percent of the respondents (majority) disagreed that there were procedures in place to ensure that assets additions, disposals and transfers were accounted for, as compared to only 4.5 percent of the respondent who strongly agreed that there were procedures in place to ensure that assets additions, disposals and transfers were accounted for. On the other hand, 27.3 percent of the respondents agreed that there were procedures in place to ensure that assets additions, disposals and transfers were accounted for, while 9.1 percent of the respondents strongly disagreed that there were procedures in place to ensure that assets additions, disposals and transfers were accounted for. This indicated that, there were no procedures in place to ensure that assets additions, disposals and transfers were accounted for at Takoradi Polytechnic.

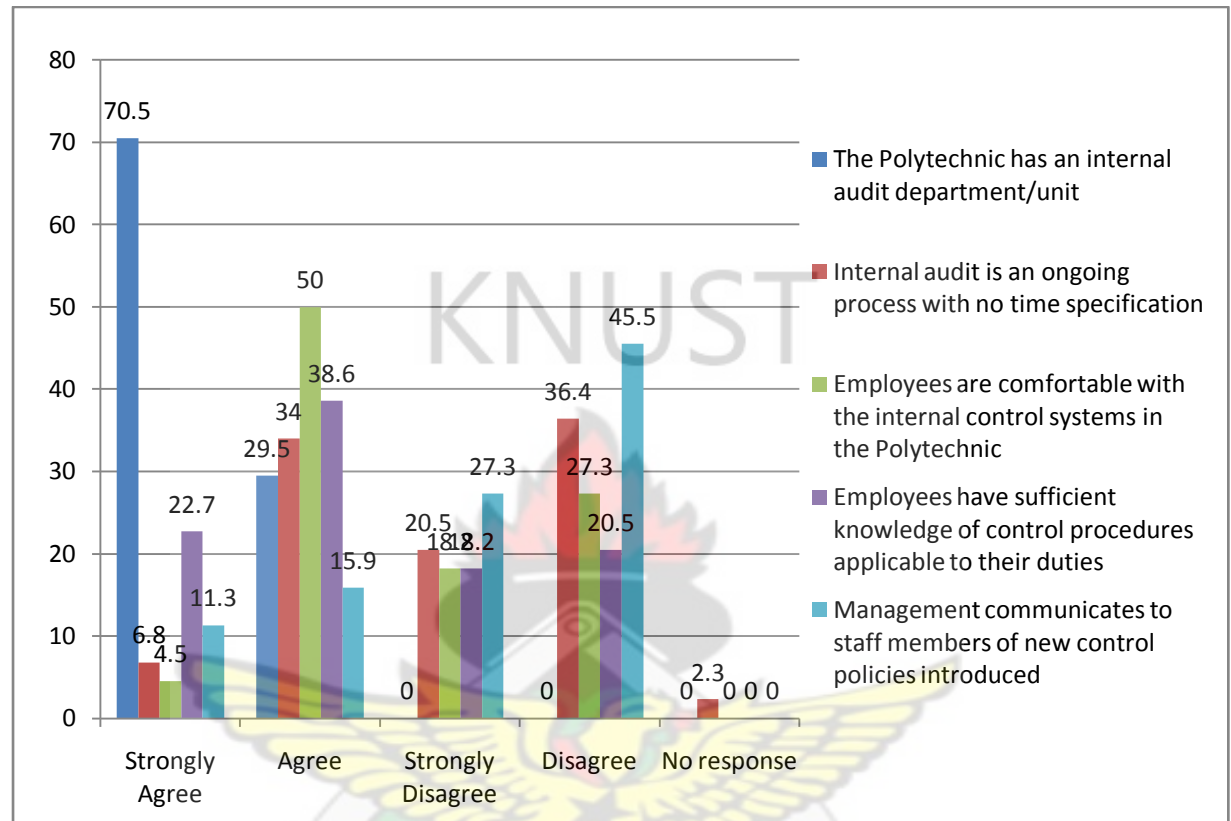
**TABLE 4.12 ALL CASH RECEIVED ACCOUNTED FOR**

	Frequency	Percent	Cumulative Percent
Strongly Agree	11	25.0	25.0
Agree	22	50.0	75.0
Strongly Disagree	4	9.1	84.1
Disagree	7	15.9	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.12 above depicted that, 50.0 percent of the respondents (majority) agreed that all cash received were accounted for, as compared to only 9.1 percent of the respondents who strongly disagreed that all cash received were accounted for. On the other hand, 25.0 percent of the respondents strongly agreed that all cash received were accounted for,

while 15.9 percent of the respondents disagreed that all cash received were accounted for. This was an indication that, all cash received were accounted for at Takoradi Polytechnic.



Source: Field Survey April 2011

**FIGURE 4.13 EMPLOYEES AWARENESS OF THE INTERNAL CONTROL SYSTEMS AT TAKORADI POLYTECHNIC**

Figure 4.13 above showed that, 70.5 percent of the respondents (majority) strongly agreed that Takoradi Polytechnic had an internal audit department, as compared to only 29.5 percent of the respondents who also agreed that Takoradi Polytechnic had an internal audit department. However, none of the respondents strongly disagreed or disagreed that Takoradi Polytechnic had an internal audit department. Similarly, all the 27 respondents interviewed were of the view that Takoradi Polytechnic had an internal audit department.

This indicated that, Takoradi Polytechnic has an internal audit department to ensure smooth operation of all control activities.

Figure 4.13 above showed that, 36.4 percent of the respondents (majority) disagreed that internal control system was an ongoing process with no time specification, as compared to 6.8 percent of the respondent who strongly agreed that internal control system was an ongoing process with no time specification. On the other hand, 34.0 percent of the respondents agreed that internal control system was an ongoing process with no time specification, while 20.5 percent of the respondents strongly disagreed that internal control system was an ongoing process with no time specification. However, 1 representing 2.3 percent of the respondents did not give any response. This was an indication that, employees were not aware of the fact that internal control system was an ongoing process with no time specification at Takoradi Polytechnic.

Figure 4.13 above showed that, 50.0 percent of the respondents (majority) agreed that employees were comfortable with the internal control systems, as compared to only 4.5 percent of the respondents who strongly agreed that employees were comfortable with the internal control systems. On the other hand, 27.3 percent of the respondents disagreed that employees were comfortable with the internal control systems, while 18.2 percent of respondents strongly disagreed that employees were comfortable with the internal control systems. This indicated that, employees were comfortable with the internal control systems at Takoradi Polytechnic.

Figure 4.13 above showed that, 38.6 percent of the respondents (majority) agreed that employees had sufficient knowledge of control procedures applicable to their duties, as

compared to 18.2 percent of the respondents who strongly disagreed that employees had sufficient knowledge of control procedures applicable to their duties. On the other hand, 22.7 percent of the respondents strongly agreed that employees had sufficient knowledge of control procedures applicable to their duties, while 20.5 percent of the respondents disagreed that employees had sufficient knowledge of control procedures applicable to their duties. Moreover, 19 out of the 27 respondents interviewed said that they had sufficient knowledge of control procedures applicable to their duties. This indicated that, employees at Takoradi Polytechnic had sufficient knowledge of control procedures applicable to their duties.

However, a correlation analysis showed a weak correlation between the respondents length of service with the Polytechnic and their knowledge of control procedures applicable to their duties with a value of 0.284 (Refer to Appendix III). This means that the number of years worked by employees did not necessary mean they had sufficient knowledge of control procedures applicable to their duties.

Figure 4.13 above showed that, 45.5 percent of the respondents (majority) disagreed that management communicated to staff of new internal control policies introduced, as compared to only 11.5 percent of the respondents who strongly agreed that management communicated to staff of new internal control policies introduced. On the other hand, 27.3 percent of the respondents strongly disagreed that management communicated to staff of new internal control policies introduced, while 15.9 percent of the respondents agreed that management communicated to staff of new internal control policies introduced. Moreover, 21 out of the 27 respondents interviewed confirmed that management did not communicate to staff of new internal control policies introduced.

This was an indication that, management did not communicate to staff of new internal control policies introduced. In other words, workers were indirectly forced to seek information from their colleagues which might not always give the required results.

Again, from Appendix IV, the coefficient of variation for employees having sufficient knowledge of internal control procedures applicable to their duties was 44.8 percent as compared to communication by management of internal control policies which had coefficient of variation of 34.0 percent. This means that employees had knowledge of control procedures applicable to their though management did not communicate to employees of new control policies.

**TABLE 4.14 NO PAYMENTS MADE WITHOUT SUPPORTING DOCUMENT(S)**

	Frequency	Percent	Cumulative Percent
Strongly Agree	15	34.1	34.1
Agree	22	50.0	84.1
Strongly Disagree	4	9.1	93.2
Disagree	3	6.8	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.14 above showed that, 50.0 percent of the respondents agreed that no payments were made without supporting document, as compared to only 6.8 percent of the respondents who disagreed that no payments were made without supporting document. On the other hand, 34.1 percent of the respondents strongly agreed that no payments were

made without supporting document, while 9.1 percent of the respondent strongly disagreed that no payments were made without supporting document. This indicated that, all payments were supported with documents at Takoradi Polytechnic.

**TABLE 4.15 PROPER AUTHORIZATION FOR EVERY TRANSACTION.**

	Frequency	Percent	Cumulative Percent
Strongly Agree	12	27.3	27.3
Agree	16	36.4	63.7
Strongly Disagree	6	13.6	77.3
Disagree	10	22.7	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.15 above showed that, 36.4 percent of the respondents agreed that there was proper authorization for every transaction, as compared to 13.6 percent of the respondents who strongly disagreed that there was proper authorization for every transaction. On the other hand, 27.3 percent of the respondents strongly agreed that there was proper authorization for every transaction, while 22.7 percent of the respondents disagreed that there was proper authorization for every transaction. This indicated that, there was proper authorization for every transaction at Takoradi Polytechnic.

From Appendix IV, proper authorisation had the highest coefficient of variation (48.1%), as compared to the other items. This confirmed the finding that there exist proper authorisations at Takoradi Polytechnic.



**TABLE 4.16 THE INTERNAL AUDIT DEPARTMENT TESTS THE CONTROLS FOR PERFECTION.**

	Frequency	Percent	Cumulative Percent
Strongly Agree	5	11.4	11.4
Agree	9	20.5	31.9
Strongly Disagree	10	22.7	54.6
Disagree	19	43.2	97.8
No Response	1	2.3	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.16 above showed that, 43.2 percent of the respondents disagreed that the internal audit department tested the controls from time to time to ascertain if they were working to perfection, as compared to 11.4 percent of the respondents who strongly agreed that the internal audit department tested the controls from time to time to ascertain if they were working to perfection. On the other hand, 22.7 percent of the respondents strongly disagreed that the internal audit department tested the controls from time to time to ascertain if they were working to perfection, while 20.5 percent of the respondents agreed that the internal audit department tested the controls from time to time to ascertain if they were working to perfection. However, 2.3 percent of the respondents did not give any response. This indicated that, the control policies in the Polytechnic were not regularly checked to ascertain if they were working to perfection.

**TABLE 4.17 ADEQUATE SEGREGATION OF STAFF DUTIES**

	Frequency	Percent	Cumulative Percent
Strongly Agree	10	22.7	22.7
Agree	21	47.8	70.5
Strongly Disagree	6	13.6	84.1
Disagree	7	15.9	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

From table 4.17 above, 47.8 percent of the respondents agreed that there was adequate segregation of staff duties, as compared to 13.6 percent of the respondents who strongly disagreed that there was adequate segregation of staff duties. On the other hand, 22.7 percent of the respondents strongly agreed that there was adequate segregation of staff duties, while 15.9 percent of the respondents disagreed that there was adequate segregation of staff duties. Moreover, 16 out of the 27 respondents interviewed confirmed that staff duties were adequately segregated. This indicated that, no single employee handled a transaction from the beginning to the end. This finding supports **Ricciute (2001)** that the ability of management to ensure segregation of duties is a major success factor in maintaining effective internal control.

**TABLE 4.18 BANKERS NOTIFIED OF ANY CHANGE OF STAFF.**

	Frequency	Percent	Cumulative Percent
Strongly Agree	6	13.6	13.6
Agree	13	29.5	43.2
Strongly Disagree	5	11.4	54.5
Disagree	20	45.5	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

From table 4.18 above, 45.5 percent of the respondents (majority) disagreed that bankers are quickly notified of any change of staff that was authorized to perform bank transactions, as compared to only 11.4 percent of the respondents who strongly disagreed that the bankers were quickly notified of any change of staff that was authorized to perform bank transactions. On the other hand, 29.5 percent of the respondents agreed that the bankers were quickly notified of any change of staff that was authorized to perform bank transactions, while 13.6 percent of the respondents strongly agreed that the bankers were quickly notified of any change of staff that was authorized to perform bank transactions. This indicated that, Takoradi Polytechnic's bankers were not quickly notified of any change of staff that was authorized to perform bank transactions.

**TABLE 4.19 ASSESSMENTS OF CONTROL SYSTEMS**

	Frequency	Percent	Cumulative Percent
Very Effective	8	18.2	18.2
Quite Effective	20	45.4	63.6
Very Poor	5	11.4	75.0
Quite Poor	11	25.0	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.19 above showed that, 45.4 percent of the respondents (majority) indicated that the control systems at Takoradi Polytechnic were quite effective, as compared to only 11.4 percent of the respondents who indicated that the control systems at Takoradi Polytechnic were very poor. Moreover, 14 (majority) of the respondents interviewed stressed that the control systems at Takoradi Polytechnic were quite effective.

Coefficient of variation conducted for this item showed a value of 43.8% (Refer to Appendix IV), which confirmed that the internal control systems were not very effective but quite effective.

Again, a correlation analysis showed a weak negative correlation between the respondents length of service at Takoradi Polytechnic and the assessment of control systems with a coefficient value of -0.075 (Refer to Appendix III). This means that the number of years that employees worked at Takoradi Polytechnic did not imply that they had knowledge about internal control systems.

**TABLE 4.20 REASONS FOR THE CONTROL SYSTEMS AT TAKORADI  
POLYTECHNIC**

	Frequency	Percent	Cumulative Percent
To conduct business in an orderly and efficient manner.	12	27.3	27.3
Adherence to internal policies.	8	18.2	45.5
Safeguarding assets.	4	9.1	54.6
Prevention and detection of fraud and error.	18	40.9	95.5
Accuracy and completeness of financial records.	2	4.5	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

From table 4.20 above, 40.9 percent of the respondents (majority) indicated that the control systems at Takoradi Polytechnic were directed towards prevention and detection of fraud and error, while 4.5 percent of the respondents indicated that the control systems were directed towards accuracy and completeness of financial records. Moreover, 27.3 percent of the respondents indicated that the control systems at Takoradi Polytechnic were directed towards the conduct of business in an orderly and efficient manner, while 18.2 percent of the respondents indicated that the control systems were directed towards adherence to internal policies. This indicates that, the control systems at Takoradi Polytechnic were mainly directed towards prevention and detection of fraud and error.

**TABLE 4.21 WHICH DEPARTMENT IS WEAK IN CONTROLS AND WHY?**

	Frequency	Percent	Cumulative Percent
Lack of physical counting by the audit department.	5	11.4	11.4
There is no proper documentation at finance department.	8	18.2	29.6
Stocks levels are not kept at the store department.	2	4.5	34.1
Inadequate logistics at finance department.	11	25.0	59.1
No response	18	40.9	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.21 above showed that, 25.0 percent of the respondents indicated that, there were inadequate logistics at the finance department, while 4.5 percent of the respondents indicated that stocks levels were not kept at the stores department. Moreover, 18.2 percent of the respondents indicated that there were no proper documentations at the finance department, while 11.4 percent of the respondents also indicated that there was lack of physical counting by the audit department. However, 40.9 percent of the respondents did not give any response. The significance of this finding is that most of the respondents indicated that the finance department was weak in control due to inadequate logistics.

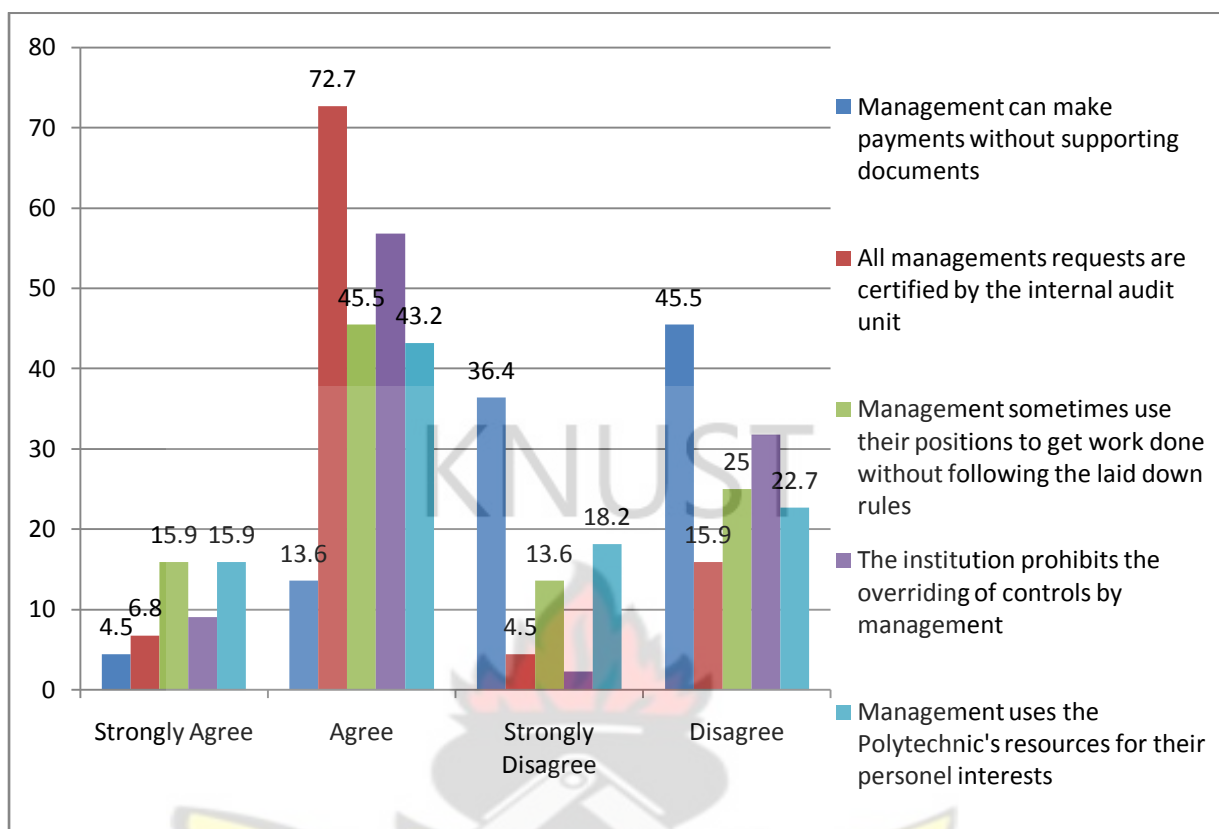


**TABLE 4.22 SOLUTIONS TO ABOVE WEAKNESSES**

	Frequency	Percent	Cumulative Percent
There should be physical count by the audit department.	5	11.4	11.4
There must be proper documentation at finance department.	8	18.2	29.6
Stock levels should be kept at the store department.	2	4.5	34.1
The institution must provide adequate logistics at the finance department.	11	25.0	59.1
No response	18	40.9	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

From Table 4.22, 25.0 percent of the respondents indicated that, Takoradi Polytechnic must provide adequate logistics at the finance department, while 4.5 percent of the respondents indicated that stocks levels must be kept at the stores department. Moreover, 18.2 percent of the respondents indicated that there must be proper documentation at the finance department, while 11.4 percent of the respondents also indicated that there must be physical counting by the audit department. However, 40.9 percent of the respondents did not give any response. This signified that, the finance department which constitutes the majority must be provided with adequate logistics such as computers.



Source: Field Survey April 2011

#### FIGURE 4.23 MANAGEMENT OVERRIDING THE CONTROL SYSTEMS

Figure 4.23 above showed that, 45.5 percent of the respondents (majority) disagreed that management can make payments without supporting documents, as compared to 4.5 percent of the respondents who strongly agreed that management can make payments without supporting documents. On the other hand, 36.4 percent of the respondents strongly disagreed that management can make payments without supporting documents, while 13.6 percent of the respondents agreed that management can make payments without supporting documents. This was an indication that, all payments were supported with documents at Takoradi Polytechnic.

Figure 4.23 above shows that, 72.7 percent of the respondents (majority) agreed that management requests were certified by the internal audit unit, as compared to only 4.5 percent of the respondents who strongly disagreed that management requests were certified by the internal audit unit. On the other hand, 15.9 percent of the respondents disagreed that management requests were certified by the internal audit unit, 6.8 percent of the respondents strongly agreed that management requests were certified by the internal audit unit. This indicated that, management requests were certified by the internal audit unit at Takoradi Polytechnic.

Figure 4.23 above showed that, 45.5 percent of the respondents (majority) agreed that management sometimes used their positions to get work done without following the laid down rules, while 13.6 percent of the respondents strongly disagreed that management sometimes used their positions to get work done without following the laid down rules. On the other hand, 25.0 percent of the respondents disagreed that management sometimes used their positions to get work done without following the laid down rules, while 15.9 percent of the respondents strongly agreed that management sometimes used their positions to get work done without following the laid down rules. Moreover, 18 out of 27 of the respondents interviewed confirmed that management sometimes used their positions to get work done without following the laid down rules. This was an indication that, management at Takoradi Polytechnic is the task oriented type who would want to get work done without always following the laid down rules.

Figure 4.23 above showed that, 56.8 percent of the respondents (majority) agreed that Takoradi Polytechnic prohibits the overriding of controls by management, as compared to only 2.3 percent of the respondents who strongly disagreed that the Polytechnic prohibits

the overriding of controls by management. On the other hand, 31.8 percent of the respondents disagreed that the Polytechnic prohibits the overriding of controls by management, while 9.1 percent of the respondents strongly agreed that the Polytechnic prohibits the overriding of controls by management. Moreover, 16 out of the 27 respondents interviewed also confirmed that the Polytechnic prohibits the overriding of controls by management. This was an indication that, Takoradi Polytechnic prohibits the overriding of internal controls by management.

However, a correlation analysis conducted showed a very weak positive correlation between communication by management of control policies and the prohibition of overriding of control by management with a value of 0.135 (Refer to Appendix III). The significance of this finding is that management may communicate to employees of new internal control policies but management did very little to prohibit the overriding of control systems. This finding supports one of the main objectives of the **Sarbanes-Oxley Act (2002)**, that management should not override the internal controls.

Figure 4.23 above showed that, 43.2 percent of the respondents (majority) agreed that management used Takoradi Polytechnic's resources for their personal interest, as compared to 15.9 percent of the respondents who strongly agreed that management used the Polytechnic's resources for their personal interest. On the other hand, 22.7 percent of the respondents disagreed that management used the Polytechnic's resources for their personal interest, while 18.2 percent of the respondents strongly disagreed that management used the Polytechnic's resources for their personal interest. It is amazing to know that, 22 out of 27 workers interviewed also confirmed that management used the

Polytechnic's resources for their personal interest. This was an indication that, the resources at Takoradi polytechnic were not solely used for their intended purpose.

**TABLE 4.24 THE POLYTECHNIC HAS AN INDEPENDENT AUDIT COMMITTEE WHICH THE INTERNAL AUDIT DEPARTMENT REPORTS TO.**

	Frequency	Percent	Cumulative Percent
Strongly Agree	11	25.0	25.0
Agree	17	38.7	63.7
Strongly Disagree	6	13.6	77.3
Disagree	8	18.2	95.5
No response	2	4.5	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

From table 4.24 above, 38.7 percent of the respondents agreed that the Polytechnic had an independent audit committee which the internal audit department reports to, as compared to 13.6 percent of the respondents who strongly disagreed that the Polytechnic had an independent audit committee which the internal audit department reports to. On the other hand, 25.0 percent of the respondents strongly agreed that the Polytechnic had an independent audit committee to which the internal audit department reports, while 18.2 percent of the respondents disagreed that the Polytechnic had an independent audit committee to which the internal audit department reports. However, 2 representing 4.5 percent of the respondents did not give any response. This indicated that, the Polytechnic

had an independent audit committee which the internal audit department reports to. This finding supports one of the roles of **Audit Report Implementation Committee (ARIC)** that public institutions should have effective audit committee.

**TABLE 4.25 FINANCIAL RECORDS PREPARED ON CONSISTENT BASIS TO MEET INTERNATIONAL ACCOUNTING STANDARDS.**

	Frequency	Percent	Cumulative Percent
Strongly Agree	5	11.4	11.4
Agree	23	52.3	63.7
Strongly Disagree	4	9.1	72.8
Disagree	12	27.2	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

From table 4.25 above, 52.3 percent of the respondents agreed that financial records were prepared on regular basis to meet international accounting standards, as compared to only 9.1 percent of the respondents who strongly disagreed that financial records were prepared on regular basis to meet international accounting standards. On the other hand, 27.2 percent of the respondents disagreed that financial records were prepared on regular basis to meet international accounting standards, while 9.1 percent of the respondents strongly disagreed that financial records were prepared on regular basis to meet international accounting standards. This indicated that, financial records were prepared on regular basis to meet international accounting standards at Takoradi Polytechnic. This finding supports one of the objectives of the **Sarbanes-Oxley Act (2002)**, that Finance



Officers must ensure that their annual and quarterly reports were accurate and not misleading.

**TABLE 4.26 THE INDEPENDENCY AND OBJECTIVITY OF THE AUDIT DEPARTMENT**

	Frequency	Percent	Cumulative Percent
Strongly Agree	9	20.5	20.5
Agree	16	36.4	56.9
Strongly Disagree	6	13.6	70.5
Disagree	13	29.5	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.26 above showed that, 36.4 percent of the respondent agreed that the internal audit department was independent and objective in the conduct of its duties, as compared to 13.6 percent of the respondents who strongly disagreed that the internal audit department was independent and objective in the conduct of its duties. On the other hand, 13 representing 29.5 percent of the respondents disagreed that the internal audit department was independent and objective in the conduct of its duties, while 9 representing 20.5 percent of the respondents strongly agreed that the internal audit department was independent and objective in the conduct of its duties. However, 16 out of the 27 respondents interviewed stressed that the internal audit department was not independent and objective in the conduct of its duties. This indicates that, the internal

audit department was being influenced, hence its independence and objectivity were questionable.

**TABLE 4.27 EXISTENCE OF EFFECTIVE ORGANISATIONAL STRUCTURE THAT SHOWS LINES OF AUTHORITY.**

	Frequency	Percent	Cumulative Percent
Strongly Agree	4	9.1	9.1
Agree	18	40.9	50.0
Strongly Disagree	6	13.6	63.6
Disagree	16	36.4	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

Table 4.27 above showed that, 18 (majority) representing 40.9 percent of the respondents agreed that there was effective organizational structure that shows lines of authority, while 4 (minority) representing 9.1 percent of the respondents strongly agreed that there was effective organizational structure that shows lines of authority. On the other hand, 16 representing 36.4 percent of the respondents disagreed that there was effective organizational structure that shows lines of authority, while 6 representing 13.6 percent of the respondents strongly disagreed that there was effective organizational structure that shows lines of authority. However, 16 out of the 27 respondents interviewed were of the opinion that, though the Polytechnic had an organizational structure, the structure did not clearly show lines of authorities and responsibilities. This was an indication that, the organizational structure in the Polytechnic failed to show lines of authority.

**TABLE 4.28 PERIODIC REVIEW OF CONTROL ACTIVITIES BY MANAGEMENT**

	Frequency	Percent	Cumulative Percent
Strongly Agree	4	9.1	9.1
Agree	9	20.5	29.6
Strongly Disagree	11	25.0	54.6
Disagree	20	45.4	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

From table 4.28 above, 20 (majority) representing 45.4 percent of the respondents disagreed that management periodically reviewed the control activities to ensure they were working to perfection, while 4 (minority) representing 9.1 percent of the respondents strongly agreed that management periodically reviewed the control activities to ensure they were working to perfection. On the other hand, 11 representing 25.0 percent of the respondents strongly disagreed that that management periodically reviewed the control activities to ensure they were working to perfection, while 9 representing 20.5 percent of the respondents agreed that management periodically reviewed the control activities to ensure they were working to perfection. This indicates that, management did not reviewed the control activities periodically to ensure they were working to perfection.

**TABLE 4.29 EXISTENCE OF EFFECTIVE CONTROL ENVIRONMENT TO ADDRESS CONTROL ACTIVITIES**

	Frequency	Percent	Cumulative Percent
Strongly Agree	10	22.7	22.7
Agree	14	31.8	54.5
Strongly Disagree	9	20.5	75.0
Disagree	11	25.0	100.0
<b>Total</b>	<b>44</b>	<b>100.0</b>	

*Source: Field Survey April 2011*

From table 4.29 above, 14 (majority) representing 31.8 percent of the respondents agreed that there was effective control environment to address control activities, while 10 (minority) representing 22.7 percent of the respondents strongly agreed that there was effective control environment to address control activities. On the other hand, 11 representing 25.0 percent of the respondents disagreed that there was effective control environment to address control activities, while 9 representing 20.5 percent of the respondents strongly disagreed that there was effective control environment to address control activities. This is an indication that, there was effective control environment to address control activities at Takoradi Polytechnic. This finding confirms **Ghana Health Service Internal audit Division Manual (1998)**, that a strong general control environment serves to reinforce control procedure employed in activities/functions.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter summarises all the findings made, draws conclusion from them and finally make recommendations to the management of Takoradi Polytechnic.

#### 5.1 Summary of findings

Firstly, the research sought to find out the internal control systems or polices at Takoradi Polytechnic. The findings of the research revealed that the internal control systems or policies that exist in the Polytechnic include strict supervision by heads of departments, authorization by the rector and inadequate segregation of staff duties. Moreover, the findings also revealed that one person cannot sign for the department's account, all cash received are accounted for, and all payments are supported with receipts. However, the findings revealed that there are no procedures to account for assets additions, disposals and transfers and the institution's logo is not embossed on all assets. The majority of the respondents indicated the existence of control policies in the institution. This is to guide employees to help achieve the aims and objectives of the Polytechnic.

Secondly, the research sought to find out if the employees in the Polytechnic are aware of the internal control systems or policies. The findings of the research revealed that, employees are aware of the fact that the Polytechnic has an internal audit department and that employees are comfortable with the control systems in the Polytechnic. Again, the study revealed that employees have sufficient knowledge of control procedures applicable to their duties. However, the findings revealed that employees did not see internal control

system to be an on-going process and also management does not communicate to staff members of new control policies introduced.

Thirdly, the research sought to examine if the implementations of the internal control systems at the Polytechnic are effective. The finding of the research revealed that payments are supported with documents, proper authorization and adequate segregation of the staff duties. However, the findings also shown that, the internal audit department lacks testing of the control policies for perfection and also their bankers are not notified of any change of staff assigned to banking duties. Again, the study revealed that, the control systems, or policies of the Polytechnic are quite effective and are mainly directed towards prevention and detection of fraud and error. Furthermore, the findings revealed the following departments to be weak in internal controls; lack of physical counting by the audit department, no proper documentation and adequate logistics at the finance department.

Fourthly, the research sought to find out if management is able to override the internal control systems. The findings of the research revealed that management makes payment with supporting documents, management requests are certified by the internal audit unit and that the Polytechnic even prohibits overriding of control activities by management. On the other hand, the findings indicated that management in the institution are task oriented who would not always follow the laid down rules to get work done, and also use the Polytechnic's resources for their personal interests.

Finally, the research sought to find out if the internal control systems are consistent with international standards. The study revealed that the Polytechnic has an independent audit



committee and that financial records are also prepared on consistent basis to meet international accounting standard. However, the study shown that the internal audit department is not independent and objective in its duties and the organizational structure in the Polytechnic fails to clearly show lines of authority. The study has shown that the management does not review the control activities to ensure perfection and that strong control environment exists to address control activities. Therefore, the institution's control systems have a benchmark which is the international acclaimed standards.

## 5.2 Conclusions

On the basis of the findings the following conclusions can be drawn. Firstly, the findings of this research identified that the internal control systems that exist in Takoradi Polytechnic include strict supervision, inadequate segregation of duties, and proper authorisation. Moreover, the findings further identified that one person cannot sign for the department account, all cash received are accounted for and all payments are supported with receipts. However, the findings also identified that, not all assets have the Polytechnic's logo and there are no procedures to account for assets additions, transfers and disposals. From the findings, it can be concluded that Takoradi Polytechnic has well designed control systems to guide its operations.

Secondly, the findings of this research sought the views of the employees as to their awareness of the internal control systems or policies. The findings identified that employees are comfortable with the control policies in the Polytechnic and that they have sufficient knowledge of control procedures applicable to their duties. However, the findings also identified that, management fails to inform the staff of new control policies

introduced. Hence the employees would find it difficult to implement the control policies when they are not aware or informed of the very control policies they are to work with.

Thirdly, the findings of this research identified the following in order to make the internal control systems or policies effective. Payments are supported with documents, proper authorization and adequate segregation of duties. However, the research also identified that the audit department lacks physical counting and does not test the control activities for perfection. Again the study identified that institution's bankers are not notified of any change of staff that is authorized to perform bank transactions. In the whole, the findings identified the internal control systems or policies in the institution to be quite effective and are directed mainly towards the prevention and detection of fraud and error. Therefore in order for management to achieve its aims and objective the control activities established must be effectively implemented.

Fourthly, the findings of this research identified that management cannot make payment without supporting documents and that all management requests are certified by the internal audit unit. Though the institution prohibits the overriding of controls, according to the study, the findings identified that management is task oriented who sometimes use their positions to get work done without following the laid down rules and also uses the Polytechnic resources for their personal interests. This research supports one of the objectives of the **Sarbanes-Oxley Act (2002)** that managements do not override internal control.

Lastly, the findings of the research related the control systems or policies to international standard. As a result, the findings identified that the Polytechnic has an independent audit

committee, financial records are prepared on consistent basis and that there is effective control environment to address control activities. However, the findings of the research further identified that, the internal audit department is not independent and objective, ineffective organizational structure and failure by management to review the control activities. This study supports the works of the **Treadway Commission (1985 )**, that top management must create a control environment and that the audit committee and the internal audit function should be intended as checks on management to create an atmosphere of control within the organization. In the whole, even though there have been few departures from effectively implementing internal controls in Takoradi Polytechnic, the researcher concludes that internal control systems to an extent are effective in the institution.

### **5.3 Recommendations**

Although good internal control can be expensive, the cost involved would be offset by the benefits to be received from it such as protection of assets and prevention of errors.

The following are the recommendation for the management of Takoradi Polytechnic.

The management of the Polytechnic should as matter of urgency emboss the Polytechnic's name on all assets and update the fixed asset register thereon to safeguard all assets against pilfering and other irregularities.

The Polytechnic should have a system which indicates the location of every asset at a particular point in time. In the same way, when an asset is transferred from one department to another, the system must indicate where the asset is from and where it is

going to. When assets are disposed off, they should be properly cancelled out and backed with receipts.

The internal audit team of the Polytechnic should develop structured and consistent visits to all areas of the institution in order to keep all employees alert so as to eliminate any hidden transactions that may affect the institution's aims and objectives. The management of Takoradi Polytechnic should as much as possible keep the employees informed of any new control policies introduced. This is because the employees are the very people who are going to work with the control policies and hence informing them means effective implementation of the control policies.

Furthermore, once control policies are implemented, they must be tested from time to time to check whether they are achieving their intended purpose. Therefore, management must compare the expected results of the control policies with the actual results. By investigating the reasons for non-performance, management would be placed in a better position to effect timely changes in strategies and plans, or take appropriate actions.

Management should always communicate to their bankers of any staff involved in banking activities whose appointment has been terminated. This would ensure that employees do not perform bank transactions unknowingly to the management of the Polytechnic.

Systems of controls are established by management to carry out business in an orderly and efficient manner. The management at Takoradi Polytechnic should use their position

to set good example by following the laid down procedures set by them in order to achieve the aims and objectives of the Polytechnic.

The resources of the Polytechnic are intended for a specific purpose, perhaps for the achievement of the aims and objectives of the institution. When management uses the resources of the Polytechnic for their personal interest, it means depriving the institution from achieving its objectives. Hence there must be behavioural and ethical standards that discourage management from engaging in acts that lead to dishonesty, unethical and illegal behaviours. To be effective, these standards must be effectively communicated through appropriate means, including official policies, codes of conduct and by setting examples.

Since the internal auditor is appointed by management and for that matter forms part of management team, his duties would be influence by management. However, the Polytechnic council should ensure a strong audit committee to check the activities of the internal audit department. Again, since the Polytechnic is a government institution, the Audit Report Implementation Committee set by the government should be up and doing.

The organizational structure in the Polytechnic should clearly show each person's role and the authorities required to perform those roles. The lines of authority should be clearly stated so that employees would know whom to report to or take instruction from in the Polytechnic.

Internal control is most effective when controls are built into the entity's infrastructure and are a part of the essence of the enterprise. "Built in" controls support quality and

empowerment initiatives, avoid unnecessary costs and enable quick response to changing conditions.

Finally, Takoradi Polytechnic should invest in computerizing most of its manual operations especially at the finance department. This would involve the acquisition of computers and various software that would compliment and facilitate a smooth delivery of services to their service users.





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## APPENDIX I

### QUESTIONNAIRE FOR TAKORADI POLYTECHNIC STAFF KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY INSTITUTE OF DISTANCE LEARNING

This questionnaire is purposely designed to obtain information on the topic “**Assessing the effectiveness of internal control systems in public institutions - A case study of Takoradi Polytechnic**”. This dissertation is part of the requirement for the award of **Commonwealth Executive Master in Business Administration**. I would appreciate if you could provide candid response to the items in the questionnaire. Confidentiality in respect of whatever information you give is fully assured.

Thanks for your co-operation.

#### SECTION A

##### PERSONAL DATA ON RESPONDENT

Please tick [✓] or write as appropriate.

- \*1. Sex of respondent: (a) Male [ ] (b) Female [ ]
- \*2. Category of Staff : (a) Junior Staff [ ] (b) Senior Staff [ ] (c) Senior Member [ ]
- \*3. Level of education: (a) HND [ ] (b) First Degree [ ] (c) Second Degree [ ]  
(d) Others, please Specify-----
- \*4. Which department do you work with? -----
- \*5. How long have you worked with the institution?  
(a) Below 1 year [ ] (b) 1-5 years [ ] (c) 6-10 years [ ] (d) 11-15 years [ ] (e) 16-20 [ ]  
(f) Above 20 years

## SECTION B

### INTERNAL CONTROL SYSTEMS IN THE POLYTECHNIC

**Control systems are the policies and procedures designed to ensure that management directives are effectively implemented (Millichamp & Taylor, 2008)**

Please indicate your level of agreement or disagreement with each of the statements below:

**The scale is 1 to 4 where 1=strongly Agree; 2=Agree; 3=strongly Disagree; 4=Disagree**

S/N	STATEMENT	Strongly Agree	Agree	Strongly Disagree	Disagree
		1	2	3	4
*Q6	Staff activities are strictly supervised by their Heads of Department.				
*Q7	The Polytechnic has its logo embossed on all assets.				
Q8	The rector authorizes all payments after approval by the internal auditor.				
*Q9	Duties of staff are adequately segregated.				
Q10	There is only one signatory to the department's account.				
Q11	Payment vouchers are supported with receipts.				
Q12	There are procedures in place to ensure that assets additions, disposals and transfers are accounted for.				
Q13	All cash received are accounted for.				

## SECTION C

### EMPLOYEES AWARENESS OF INTERNAL CONTROL SYSTEMS

S/N	STATEMENT	Strongly Disagree	Disagree	Agree	Strongly Agree
		1	2	3	4
*Q14	The Polytechnic has an internal audit department/unit.				
Q15	Internal control system is an ongoing process with no time specification.				
Q16	The employees are comfortable with the internal control systems.				
*Q17	Employees have sufficient knowledge of control procedures applicable to their duties.				
*Q18	Management communicates to staff members of new internal control policies or procedures introduced.				

## SECTION D

### EFFECTIVE IMPLEMENTATION OF INTERNAL CONTROL SYSTEMS

S/N	STATEMENT	Strongly Agree	Agree	Strongly Disagree	Disagree
		1	2	3	4
Q19	No payments are made without supporting document(s).				
Q20	There is proper authorization for every transaction.				
Q21	The internal audit department tests the controls from time to time to ascertain if they are working to perfection.				
*Q22	There is adequate segregation of staff duties.				
Q23	The Polytechnic's bankers are quickly notified of any change of staff that is authorized to perform bank transactions.				

\*Q24 How do you assess the control systems at the Polytechnic?

(a) Very effective [    ]    (b) Quite effective [    ]    (c) Very poor [    ]    (d) Quite poor [    ]

Q 25 The control systems at the Polytechnic are directed towards which of the following?

(I) To conduct business in an orderly and efficient manner. [    ]

(II) Adherence to internal policies. [    ]

(III) Safeguarding assets. [    ]

(IV) Prevention and detection of fraud and error. [    ]

(V) Accuracy and completeness of financial records. [    ]



Q26 Which department of the institution is weak in control and why?

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Q27 How do you think the above weaknesses can be rectified?

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## SECTION E

### MANAGEMENT OVERRIDING THE INTERNAL CONTROLS

S/N	STATEMENT	Strongly Agree	Agree	Strongly Disagree	Disagree
		1	2	3	4
Q28	Management can make payments without supporting documents.				
Q29	All management requests are certified by the internal audit unit.				
*Q30	Management sometimes use their positions to get work done without following the laid down rules.				
*Q31	The institution prohibits the overriding of controls by management.				
*Q32	Management sometimes uses the Polytechnic resources for their personal interests.				

## SECTION F

### INTERNAL CONTROLS CONSISTENT TO INTERNATIONAL STANDARDS.

S/N	STATEMENT	Strongly Agree	Agree	Strongly Disagree	Disagree
		1	2	3	4
Q33	The Polytechnic has an independent audit committee to which the internal audit department reports.				
Q34	Financial records are prepared on consistent basis to meet the international accounting standard.				
*Q35	The internal audit department is independent and objective in the conduct of its duties.				
*Q36	There is effective organizational structure that shows lines of authorities.				
Q37	Management periodically reviews the control activities to ensure whether they are working to perfection.				
Q38	There is effective control environment to address control activities.				

**NOTE:** Questions with asterisk (\*) were used as interview guide for non-experts only.

## APPENDIX II

### CORRELATIONS

		The length of service with the Institution.	Employees have sufficient knowledge of control procedures to their duties.	Communication by management of control policies.	Assessment of control systems.	The Institution prohibits the overriding of controls by management.
The length of service with the Institution	Pearson correlation Sig (2-tailed) N	1 44	.284 .061 44	-.001 .994 44	-.075 .627 44	.051 .743 44
Employees have sufficient knowledge of control procedure to their duties.	Pearson Correlation Sig (2- tailed) N	.284 .061 44	1 .127 44	-.234 .127 44	.064 .681 44	-.486 .001 44
Communication between management and staff of control policies.	Pearson Correlation Sig (2- tailed) N	-.001 .994 44	-.234 .127 44	1 .127 44	-.446 .002 44	.135 .384 44
Assessment of control systems.	Pearson Correlation Sig (2-tailed) N	-.075 .627 44	.064 .681 44	-.446 .002 44	1 .329 44	.151 .329 44
The institution prohibits the overriding of management.	Pearson Correlation Sig (2-taild) N	.051 .743 44	-.486 .001 44	.135 .384 44	.151 .329 44	1 44

### APPENDIX III

#### COEFFICIENT OF VARIATION

	N	Mean	Standard Deviation	Std Error Mean	Coefficient of Variation (%)
Segregation of staff duties	44	2.0455	.74567	.11241	36.5
Employees had sufficient knowledge of control procedures to their control duties	44	2.3636	1.05854	.15958	44.8
Communication by management of control policies	744	3.0682	1.04320	.15727	34.0
Proper authorisation of transactions	44	2.3182	1.11590	.16823	48.1
Assessment of the internal control systems	44	2.4318	1.06526	.16059	43.8
The Polytechnic prohibits the overriding of control by management	44	2.5682	1.04320	.15727	40.6