UNIVERSITY OF CAPE COAST

# INTERNAL CONTROL SYSTEMS AND PROFITABILITY OF FREE ZONE COMPANIES IN GHANA: THE CASE STUDY OF HPW FRESH AND DRY LTD AND BOMARTS LTD

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# INTERNAL CONTROL SYSTEMS AND PROFITABILITY OF FREE ZONE COMPANIES IN GHANA: THE CASE STUDY OF HPW FRESH AND DRY LTD AND BOMARTS LTD

BY

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Dissertation submitted to the Department of Accounting of the School of Business, College of Humanities and Legal Studies, University of Cape Coast in partial fulfilment of the requirements for the award of Master of Business Administration in Accounting

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# DECLARATION

## Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: ……………………… Date: ……………………..

Name: Parmenas Appiah-Adjei

## Supervisors' Declaration

I hereby declare that the preparation and presentation of this dissertation was supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature: ……………………Date: ……………………..

Name: Rev. Dr. George Tackie

## ABSTRACT

Effect of internal control systems on profitability of companies has attracted the interest of many researchers recently. Many organisations having as their objective of maximizing scarce resources sometimes run a high risk of fraud, errors, misappropriations, inefficiency and ineffectiveness of operations. This study examined the effect of internal control systems on profitability of free zone companies with focus on HPW Fresh and Dry Ltd and Bomarts Ltd. The study used cross-section data set within a causal research design. The study employed quantitative approach in the study and data collection was done using questionnaire. A total of 182 respondents including finance officers, managers and supervisors were selected using simple random sampling technique. Analyses of the data were done by using descriptive and simple regression analyses. The study revealed that control environment has a positive effect on the profitability of free zone companies. In addition, risk assessment has a positive effect on the profitability of free zone companies. The study further revealed that control activities have positive effect on the profitability of companies. The results also indicated a positive relationship between information and communication and profitability of companies. Finally, the results showed that size of the company and leverage have positive and negative effects respectively on profitability. The study therefore recommends that management of free zone companies must put in place effective internal control systems in order to propel growth and profitability of their companies.

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## DEDICATION

To my Mother Angela Oppong, Sister Elizabeth Ofori as well as my wife Esther Appiah-Adjei, children, Emerald , Jeremy and Reinhard Appiah-Adjei.

# TABLE OF CONTENTS

# LIST OF TABLES

## LIST OF ACRONYMS

| | | |
|---|---|---|
| ROA | - | Return on Asset |
| CE | - | Control Environment |
| RA | - | Risk Assessment |
| CA | - | Control Activities |
| IC | - | Information and Communication |
| SIZE | - | Size of the Company |
| LEV | - | Leverage |

# CHAPTER ONE

# INTRODUCTION

All organisations, whether profit oriented or otherwise, operate within conditions of resources constraints. As a result, various steps are taken and procedures established to ensure that the use of these resources are maximised in achieving organisational goals. Besides, many organisations having as their objective of maximising scarce resources sometimes run a high risk of fraud, errors, misappropriations, and inefficiency and ineffectiveness of operations. For these reason, steps are required to minimise, if not eliminate completely, these risks by establishing rules, regulations, policies and procedures for enhancing profitability and this is the focus of this study. This section presents the overview on the study which includes the background to the study, statement of the problem, research objectives, research hypotheses, significance of the study, delimitations, limitations and organisation of the study.

## Background to the study

In the recent years, internal controls and deliberate reporting on these controls has received a great amount of interest in the accounting literature as well as accounting profession (Rance, McMullen, Smialek, Prince & Young, 1990). Internal control is defined as a process for assuring achievement of an organization's objectives in operational effectiveness and efficiency, reliable financial reporting, and compliance with laws, regulations and policies. An organization needs internal controls to provide greater assurance that they will achieve their operating, financial reporting, and compliance objectives; in other words to help the organization succeed in its mission indicated by Committee of Sponsoring Organizations of the Treadway Commission(Lutz, 2015). Internal control is a fundamental component of good corporate governance. Good corporate governance means that the board must identify and manage all risks for a company, in terms of risk management, internal control systems in finance, operations, compliance and other areas, i.e. all the activities of the company.

Internal control ensures effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations to which the company is subject. According to Mawanda (2008), a sound internal control system helps the firm to prevent frauds, errors and minimize wastage. The increase of business units has encouraged the use of internal control as it ensures orderly and efficient conduct of business including adherence to internal policies. The completeness and accuracy of accounting records, timely preparation of financial information, can only be achieved if the proper internal control system is in place.

Farrugia (2002) also defines internal control as the system of the firm and the collaborated activities used to secure assets from loss by errors, measure the precision and reliability of data to be utilised by the management in decision making, to promote operational effectiveness and ensure conformity to rules and regulations in areas where financial departments have direct or indirect duties. The internal control system is the consideration of the management, but the control system should be thoroughly disseminated for proper implementation by the employees.

Internal control supports the utilization of resources and hence assists the management to accomplish the organization's objectives (Knechel, Hay & Ling., 2008). Doyle, Guo, Pandey, Bian, Lis and Raisch (2010) states that organizations are frequently exposed to risks and the risks it faces also change continually due to which the control systems help in monitoring and controlling risk instead of removing it. Corporations experience considerably reduced cost of debt financing by improving the quality of its control systems (Anderson, Mansi & Reeb, 2004). Weakness or lax in internal control systems cause ineffective allocation of resources to definite priorities and to ensure that worth for the money will be achieved in public spending (Lawson, De Renzio & Umarji, 2010).

In addition, previous study found that all components in internal control systems play an important tool to business success and survival (Karagiorgos Drogalas & Giovanis, 2011). Furthermore, good internal control systems can be used by the organizations to assist in operating its activities directly, and achieve the profit projected (Muraleetharan & Liu 2011).Moreover, control environment, risk assessment, control activities, information and communication and monitoring are the five interconnected components of internal control (Yang & Guan, 2004; Hayes et al., 2003). According to Konrath and Cheung (2013), control environment considerably influences and determines organisational tone, has a significant impact on the perception relating to control system and also serves as a foundation for effective functioning of the internal control system.

Furrugia (2002) describes risk assessment as the procedure employed by the management of the firm to handle the risks that act as hurdles in accomplishing the objectives. Risk assessment is the identification, assessment and supervision of risks. These risks involve misstatement of financial data or even the inefficient utilization of assets (Jones & Welsh, 2012). Control activities comprise a variety of tasks such as agreements, endorsements, certification, reconciliation, conducting reviews, providing security, and the development and maintenance of data which serve as proof of implementation of these activities along with suitable documentation (Walker & Kwong-Wing, 1999).

Britnell (2003) defines information and communication as procedures adopted by a firm to gather, process, and report authentic information within the appropriate time to ensure employees perform their duties punctually. Information and communication component of control systems enable timely accomplishment of reporting objectives by collecting and communicating relevant information within the appropriate timeframe (Gaskill, 2000). Effective information and communication systems generate reports enclosing operational, compliance and financial information that enable to run and manage a business. These reports contain internal as well as external data, circumstances and actions to enlighten decision making and external reporting. Jones, Alizadeh-Shabdiz, Morgan and Shean (2008) define monitoring as the procedure of evaluating the quality of a system's performance with the passage of time.

Continued monitoring activities are incorporated into the usual frequent activities of the firm management of many organizations with well-established visions, missions and objectives seek way to best control their enterprises. Internal controls are put in place to keep the company on course toward profitability goals and achievement of its mission. Internal controls are designed and maintained to meet basic objectives of carrying on the business in orderly and efficient manner, safeguarding assets, ensuring adherence to management policies and securing as far as possible the completeness of record. Because internal controls serve many important purpose, the increasing call for effective implementation of internal control system led to The Committee of Sponsoring Organisations of the Treadway Commission's (COSO) report; hence the need for internal audit.

Internal audit is established by management as an independent appraisal function to review the internal control system as a service to the organization. It objectively examines, evaluates and reports on the adequacy of the internal control system as a contribution to proper, economic, efficient and effective use of the resources. Though internal auditors are employees of the organization, they are guided by principles such as independence, objectivity, integrity, confidentially and competency to perform their functions which in turn lead to effective internal controls. The role of internal auditors is receiving recognition rapidly. This is evident in the establishment of Institute of Internal Auditors (IIA) in countries like U.S, U.K, and the recent passage of the Internal Audit Agency Act 2003 Act 658 in Ghana. Today, internal auditors are seen as part of top management team involved in the creation of organizational wealth and values through effective internal control system.

Profitability is described as the measurement of actual output of an organisation against its expected outputs or goals (Salas, Stagl, Burke &Goodwin, 2003). Ngo, Foley and Loi (2009) points out the significance of profitability as it motivates and helps in managing the operation of an organisation. Managerial decision making involves extensive use of financial ratios (Vinten, Alleyne & Howard, 2005). According to Van Horne (2005), the profit on assets of an entity after all expenditures and taxes is known as Return on assets.

Van Horne (2005) defines return on equity as the profit belonging to the shareholders after deduction of all expenditures and taxes. Profit to expenses ratio measures the profit of an entity respective to the operating expenditures (Mohammad, Hassan & Bader, 2008). Companies have long been acknowledged as an important sector for the economic stability and global employment. The company can be defined as “an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise. The establishment of cooperatives in developing nations of Asia, Africa and South America and the industrialized countries in Europe and North America indicate the significant role played by the cooperatives to the nation’s economy around the world (Shabri, Saad & Bakar, 2016).

The international summit of co-operatives held in 2014 revealed that the global revenue contributed by the cooperative sector grew by 11.10% to 2.2 trillion USD in 2012 compared 2011, indicated the significant contribution of cooperatives to the world economy. Similarly, cooperative sector are a critical component of the Malaysian economy as this sector is targeted to be the third engine of economic development in the Ninth Malaysian Plan after the public and private sectors (Idris, Talib & Ali, 2010). Besides that, the National Cooperative Policy 2011-2020 was launched on 110th July 2010 to provide a platform for the cooperative movement to develop and strengthen the role of cooperatives within the context of national economic development (KPDNKK & SKM, 2010).

Performance of companies can be determined using operating profit as an indicator (Shabri et al., 2016). In order to survive like any other businesses, companies need to generate profit to fulfill their social objective to maximize the benefits and increase standards of living of their members. A proportion of the cooperatives profits will be allocated usually to provide benefits and returns to the members. Two types of members' benefit are members' fund and dividend payout (Shabri et al., 2016). Higher dividend payout will attract members to participate in every business activity engaged by cooperatives.

However, the study takes into account what factor that may determine the companies' profitability, leading to increase participation of members and hence, help in growth of cooperatives' activities. Based on the literature and current phenomenon, the effectiveness of internal control systems is considered an influence on the cooperatives profitability and give impact to the cooperative's objectives in terms of operations, financial reporting and compliance. The enforcement of proper internal control system has always become a requirement to the business organization to lead them to improve financial performance (Mawanda, 2008) as well as to achieve business objective (International Federation of Accountants, 2012). Moreover, internal control is a major part in managing an organization which is helps manager achieved desired results (Arad & Jamshedy-Navid, 2009). In addition, previous study found that all components in internal control systems play an important tool to business success and survival (Karagiorgos et al., 2011).

Furthermore, good internal control systems can be used by the organizations to assist in operating its activities directly, and achieve the profit projected (Muraleetharan, 2011).

Internal control systems including internal audits are intended primarily to enhance the reliability of financial performance, either directly or indirectly by increasing accountability among information providers in an organization (Jensen, 2003). Internal control therefore has a much broader purpose such that the organization level of control problems associated with lower revenues, which explore links between disclosure of material weakness and fraud, earnings management or restatements internal controls provide an independent appraisal of the quality of managerial performance in carrying out assigned responsibilities for better revenue generation. Obuogo (2018) asserted that an effective internal control system unequivocally correlates with organizational success in meeting its revenue target level. Effective internal control for revenue generation involves; regular review of the reliability and integrity of financial and operating information, a review of the controls employed to safeguard assets, an assessment of employees' compliance with management policies, procedures and applicable laws and regulations, an evaluation of the efficiency and effectiveness with which management achieves its organizational objectives (Ittner, Larcker & Randall, 2003).

Based on the above description, it would be imperative to acquire further details on the internal control systems and profitability of companies. Effective internal control systems is an important element that organization should address to ensure that good governance can be maintained, which resulted in generated higher profit and also can help in the stability and growth of cooperative movements in Malaysia. Previous studies have looked into the effectiveness on internal control systems in public and private organization (Saidu & Zabedah, 2013; Mary,Albert & Byaruhangaet, 2014); and higher learning education (Mawanda, 2008; Popescu & Dascalu, 2012), but only a few studied on cooperatives especially on profitability that was known to be an important mechanism for promoting the growth of the cooperatives movement.

Free zones companies have become important part of policy instruments in developing economies particularly Ghana in their quest to attract foreign investment, promote non-traditional exports and to increase exports as a whole. Ghana introduced the free zones concept in the mid1990s to encourage competitive enterprises to establish themselves within zone boundaries to produce mainly for export to aid economic development. In Ghana, the performance of free zone companies has been quite enormous. Thus, free zone companies have impacted positively to economic development in Ghana such as increased in investment, employment and revenue.

HPW Fresh And Dry Ltd is a wholly owned Swiss company incorporated in Ghana in 2010 for the processing of fresh fruits such as Mangoes, Pinneapples, Coconut Banana and Pawpaw into dry fruits.

The company started operations in 2011 and currently exports about 2000tons of dry fruits annually to customers in Europe, USA, Israel and the sub Saharan Africa.

Bomarts Ltd is leading exporter of fresh pineapple from Ghana to Europe and the USA. The company is a partnership between a Ghanaian entrepreneur and a Swiss businessman that exports over 10,000tons of fresh pineapple annually.

Both companies operate in the free zones enclave in the Eastern Region of Ghana. Although free zone companies are engine for economic development, it can be said that they have challenges such as low profitability, infrastructure, service delivery and business focus essentially halted investment in the free zone therefore, the need for this study.

## Statement of the problem

There is a general consensus that internal control systems are used as management tools in financial management (Shah, 2003). However, many companies fail to recognize the importance of internal control and take its implementation for granted, which in return, manifests mostly in the reports of fraud and embezzlement in the insurance sub-sector. According to Baba (2010), internal control has significant effect on management and that the occurrence of fraud can drastically reduce the efficiency of an organization.

Thus, the lack of effective internal control can result in misappropriation, fraud and material misstatement of funds and financial information. There have been several reports of fraud and other financial indiscipline in both public and private co-operations some of which have resulted in the collapse of some of these institutions (Baba).

Over the years, successive presidents of Ghana have acknowledged the impacts of fraud on the both the domestic and the international economy. Specifically, empirical studies on the investigation of the profitability of free zone companies are very limited in Ghana. Moreover, from the few studies done in this area, it is evident that there is still a gap in knowledge on the effect of internal controls systems on the profitability of free zone companies. In addition to this, there are not as many studies carried out to stipulate the contributions of internal controls on profitability in Ghana despite many studies undertaken on financial performance in the industrial sector.

Therefore, very little evidence does exist on the effect of internal controls systems on the profitability of free zone companies (Mwambwa, 2015). To emphasize this further, the effect of internal control systems on profitability is inconclusive (Shanmugam, Haat & Ali, 2012; Munene, 2013; Ibrahim, 2017). This study aims to feel this gap by answering the question "what is the effect of internal controls on profitability of free zone companies with focus on HPW Fresh and Dry Ltd and Bomarts Ltd in Ghana.

As a result, this study aims at determining the effect of internal controls systems on the profitability of HPW Fresh and Dry Ltd and Bomarts Ltd in Ghana. This study is important since internal controls affect financial performance by mitigating risk, minimizing fraud and errors that could result in material misstatements, promoting efficiency and effectiveness of activities performed, giving reliable, complete and timely information for decision making and ensuring compliance to laws and regulations in the industrial sector.

## Purpose of the study

The main purpose of this study is to examine the effect of internal control systems on the profitability free Zone companies by focusing on HPW Fresh and Dry Ltd and Bomarts Ltd in Ghana.

## Research objectives

The specific objectives of the study are to:

1. examine the effect of control environment on the profitability of Free Zone Companies in Ghana.
2. determine the effect of risk assessment on the profitability of Free Zone Companies in Ghana.
3. establish the effect of control activities on the profitability of Free Zone Companies in Ghana.
4. establish the effect of information and communication on the profitability of Free Zone Companies in Ghana.

## Research hypotheses

The research hypotheses of the study were:

1. $H_0$: There is no relationship between control environment and the profitability of Free Zone Companies in Ghana.

$H_1$: There is a relationship between control environment and the profitability of Free Zone Companies in Ghana.

2. $H_0$: There is no relationship between risk assessment and the profitability of Free Zone Companies in Ghana.

$H_1$: There is a relationship between risk assessment and the profitability of Free Zone Companies in Ghana.

3. $H_0$: There is no relationship between control activities and the profitability of Free Zone Companies in Ghana.

$H_1$: There is a relationship between control activities and the profitability of Free Zone Companies in Ghana.

4. $H_0$: There is no relationship between information and communication and the profitability of Free Zone Companies in Ghana.

$H_1$: There is a relationship between information and communication and profitability of Free Zone Companies in Ghana.

## Significance of the study

This study shall be of great benefits to the management of the organizations in order to deal extensively with effect of internal control on organizational performance and this will eventually lead to high productivity in the organizations and also prevent risks within the organizations. This study will also help organizations to have better understanding on how to install a good internal control system for the effective running of their organizations. To managers of organizations and individuals, this study would assist them in the area of identifying the effect of internal control on profitability and its consequences. Again, the result of this study will help managers to reduce the level of risk and fraud within their organizations so as to increase the confident level of their shareholders.

Moreover, the study will be more relevant to management and students since they will be exposed to the effect of internal control systems on profitability of companies and will also serve as an eye opener to the fact that as managers, there are lots of issue relating to internal control within the organizations which if left unattended to will jeopardized organizational goal of the company. The study will also attempt to contribute to the available literature or researches that will serve as a guide for organizational staff in order to prevent fraud and risks within the organization. Policy makers would also benefit from this study in formulating policies relating to the effect of internal control on organizational performance. Finally, the findings of this study would contribute to the existing literature on the effects of internal control systems on organization's profitability more specifically the companies in Ghana.

## Delimitations

The study analyses the effectiveness of internal controls systems of free zones companies. The study shall focus on the components of internal control systems and profitability. The study shall specifically cover HPW Fresh and Dry Ghana Ltd which is located at Adeiso in the Eastern Region. This company has been selected because of its geographic location, the industry share it has in the fruit processing sector in the eastern region and its proximity. The study shall cover a period between 2016 and 2017. This period has been selected because it represents the last two financial years.

## Limitations

Resource, access to information and time were the main limitations to this study. The financial resource needed to conduct this study was quite substantial and combining studies with this research was a challenge. Access to the respondents posed another challenge for this study. Their busy schedules posed a daunting challenge in accessing reliable and in-depth knowledge from them.

## Organisation of the study

This study is organised into five chapters. Chapter one of the study consists of background of the study, statement of the problem, purpose of the study, research objectives, research questions/ hypotheses, delimitations, limitations of study, and organisation of the study. Chapter two reviewed theoretical and empirical literature which will be done with reference to the objectives of the study. Key concepts on the existing studies are reviewed and presented for readers understanding. Chapter also focuses on research methodology, including the study design, study area, target population, sample size, sampling procedure, instrument used in collecting data, sources of data, and the method of data analysis. The fourth chapter depicts and discusses the findings of results. Chapter five provides summary, conclusions, and appropriate recommendations as well as direction for future studies.

# CHAPTER TWO

# LITERATURE REVIEW

## Introduction

This chapter presents the review of relevant literature on the effect of internal control systems on the profitability of free zone companies in Ghana. It sets out the theoretical foundation of the study into three sections. The first section presents discusses the theoretical foundations including the theories and concepts relating to internal control systems and profitability. The second section examines empirical literature of interest to the topic, and whiles the last section deals with conceptual framework and conclusions from both the theoretical and empirical literature.

## Theoretical review

This section presents theories that underpinned the study as well as concepts relating to the study.

### Efficient structure theory

The theory originated from the works of Demsetz (1974). Higher profits are the results of firm's specific advantages, such as greater efficiency, instead of higher market concentration (Peltzman, 1977). This theory suggests that companies that earn high profits are more efficient. This results in low operational costs leading to profitability. It also seeks to explain the relationship between company size and profitability. It is best explained through two hypotheses: X-Efficiency (ESX) hypothesis and the hypothesis of scale of Efficiency (ESS). ESX hypothesis assumes that most efficient firms can earn higher profits due to production technology and superior management that allows them to reduce their costs (Berger, 1995). This implies that high level of x-efficiency gives companies' opportunity to earn higher profits, be more efficient and therefore maximize on financial performance. The ESS hypothesis stipulates that firms that produce at scales more efficiently compared to other competitors have lower unit costs and higher profits. Several scholars have done research to back up these hypotheses and found out that these theories together with MP had a positive effect on companies' performance (Olweny & Sipho, 2011; Mensi & Zouari, 2011). Olweny and Sipho (2011) argue that MP is a function of external market factors and ES is a function of internal factors. This study relates to the efficiency structure theory or X- Efficiency (ESX) hypothesis as it purports to support the ideal that companies that effectively and efficiently carry out their operations perform better financially as compared to those that do not. In addition, companies with weak internal controls are prone to inefficiency, which promotes an enabling environment for fraud and mismanagement to thrive and this increases operational costs leading to poor financial performance. One of the main objectives of internal controls is to assure efficiency and effectiveness of operations.

## Agency theory

This theory suggests that there is relationship between ownership structure and companies' performance. It was formalized in a research by Jensen and Meckling (1976) and subsequently by Fama and Jensen (1983).

The principal (owners of business) contracts an agent (managers of business) who is mandated to run a business on their behalf through delegated decision-making authority. According to Jensen and Meckling (1976), agency relationship is a contract which one or more person(s) (Principal(s)) engage another person (agent) to perform some service on behalf, which involves delegating some decision-making authority to the agent.

Therefore, at the heart of the agency theory is the separation of ownership and control. Because both parties are utility maximizing, Principal-Agent conflict occurs which is termed as the agency problem. Other work related issues to this relationship include the moral hazard and adverse selection. Moral hazard arises when the agent is not doing exactly what he/she was appointed to do, and adverse selection stems from the agent not possessing the requisite knowledge about what should be done. However, solutions to agency problems have given rise to agency costs (monitoring expenses, bonding expenses and residual loss).

Effective internal controls may address the agency problem and minimize agency costs through elimination of information asymmetry that may exist between the principal and the agent. Existing literature suggest that ownership structure and corporate governance influence performance. Thus, companies with stringent and value based ownership have better profitability than mutual, or state owned companies. The principal-agent model suggests that managers are less likely to engage in strictly profit maximising behavior in the absence of strict monitoring by shareholders (Agrawal & Knoeber, 19910). In addition, internal controls are associated with increased earnings management. Earnings management is the agency problem that motivated the

SOX legislation in response to earnings manipulation that leads to scandalous reporting as witnessed by Enron and WorldCom. The theory helps to understand that if firms are managed by competent managers, profitability of the firms will be enhanced.

**Institutional theory**

This theory originated from the works done by Meyer and Rowan (1977) and DiMaggio and Powell (1983). Thus, the theory proposes that organisations develop and design structures, processes and systems not primarily on rational economic cost-benefit analysis but because they are more or less required to incorporate new practices and procedures. According to Meyer and Rowan (1977), organisations are driven to incorporate the practices and procedures are symbols of conformity and social accountability. From the literature available, firms not only compete for clients and resources but also for institutional legitimacy and social fitness (DiMaggio & Powell, 1983).

According to Arwinge (2013), controls are adapted and designed in order to increase legitimacy and their survival prospects. This theory therefore is in tandem with the corporate governance and SOX requirements. The Sarbanes-Oxley Act of 2002 requires companies to report on the effectiveness of their internal controls over financial reporting as part of an overall effort to reduce fraud and restore integrity in the financial reporting process defined by prevailing rationalized concepts of organisational work and institutionalised in society. Organisations that do so increase their legitimacy and their survival prospects, independent of the immediate efficacy of the acquired practices and procedures. Further, organisational structures such as internal controls are symbols of conformity and social accountability. This theory in relation to the current study helps to understand that proper internal control systems form part of structures for improving profitability of companies.

## Conceptual Review

### Internal controls

A primary lesson from financial failures and collapses of many organizations is that internal controls are essential to corporate success and survival. According to Millichamp (2002), internal control is a whole system of controls, financial and otherwise, established by management in order to carry on the business of the enterprise in orderly and efficient manner, ensure adherence to management policies, safeguard its assets and secure as far as possible the completeness and accuracy of the records. Also, according to the COSO report issued in 1992, internal control is a process, affected by the entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objective in the following categories:

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

Though there are differences in the definitions, it can be see that the difference are only semantics as some definitions use structure; because internal controls operate everyday within an entity's framework, others use process since internal control is a dynamic function. The definitions, however, make use of the same concepts with the same objectives. For instance, a structure or process as used in the definitions means that internal controls are only means to an end but not an end in them. Also, in all the definitions, it is clear that internal controls are designed and implemented by people at the various levels of management; that is, people make the system work. All the definitions also emphasized the fact that internal controls provide reasonable assurance, not absolute, that objectives will be achieved. This means that internal controls can only help prevent and detect errors that caused failures but it cannot guarantee that those errors will never recur. Most importantly, all of the definitions assert that internal controls are designed to achieve objectives.

Though from the definitions, everyone in the organization has a role to play if internal controls were to be effective, that of internal auditors cannot be over emphasized. This is the more reason why the COSO, in its recommendations, emphasized the importance of a competent and involved audit committee and an active internal audit unit in preventing fraudulent practices. Internal auditors, though part of internal controls, play an inside – out role to ensure that all the components of internal controls are effective.

Internal control systems are established by management in order to carry on the business in efficient manner (Mawanda, 2008; Abiola & Oyewole, 2013) and to achieve overall organizational goals (Ayagre et al., 2014). The COSO defines internal control systems as a process designed, implemented and maintained by people charged with governance, management and other staff that can be expected to provide only reasonable assurance to the entity's management and board to the achievement of business objectives regarding the effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations (IFAC, 2012). The internal control systems consist of five interrelated components namely control environment, risk assessment, control activities, information and communication, and monitoring (Mary et al., 2014; Ayagre et al., 2014).

### Control environment

The control environment is the foundation for all other components of internal control that provide discipline and structure, which is its set the tone of an organization by influencing the control consciousness of its people (Ratcliffe & Landes, 2009). Dickins, O'Hara and Reisch (2009) further assert that control environment often defines as the "tone at the top" which is means that the components should get more attention from the people in the organizations.

For example, Ayagre et al. (2014) found that control environment consider effective if top management support for integrity and ethical values, establish codified standards of conduct to guide behavior, activities and decisions in order to pursuit company objectives. For cooperative organizations, the factors related to the control include the integrity and ethical values, commitment to competence of employees, management's philosophy and operating style, organizational structure, assignment of authority and responsibility, human resources policies and practices, and the activities of the board of directors or audit committee towards organizational objectives (Mendoza, 2012; Mary et al., 2014).

### Risk assessment

Risk assessment is the process of identification and analysis of the internal and external risks which may affect the management, financial reporting and legal compliance (Takahiro & Jia, 2012). In cooperatives organization, risk assessment used by identifies and analyze of relevant risks towards the achievement of the objectives and to determine how the risks should be solved (Mendoza, 2012). According to Co-operative's Best Practice Guide, Republic of Mauritius (2011), the risk assessment should be conducted regularly by board of directors to identify the risk's areas. The list of duties of officers and employees of the society should be included as risk identification in line with ethical risk areas. After that, the identified risks should be clearly documented for them to plan for an action to manage the risks.

### Control activities

Control activities occur throughout the organizations at all levels and in all functions. Control activities are the policies and procedures used in various organizations to ensure management directives are carried out and necessary actions are taken to address risks to achievement of various objectives (Ratcliffe & Landes, 2009). Mendoza (2012) list out in his research that the control activities of internal control systems in cooperatives governance can be divided into nine activities: Authorization, segregation of duties, information processing, physical controls, adequate documents, verification, reconciliation, review of operating performance and supervision. The objectives of the entity can be achieved through better control activities which is all necessary action should be taken with the aim to address risks (Saidu & Zabedah, 2013).

### Information and communication

All businesses must identify, capture and communicate important information to enables people to carry out their responsibilities. This system is imperative for entity to obtain and exchange the information in order to conduct, manage and controls its operation while the control activities are implemented (Frazer, 2011). Information system is imperative to guide in organization operation process. For example, studies by Hanim, Ebrahim, Ahmed, Rashid and Tahaet (2005) found that the greater is the information and communication, the better the performance of audit work which is the person in charge with audit work must identify, analyze, evaluate and record sufficient information to achieve desired objectives. For cooperative organizations, sufficient information and communication are required in order to obtain and transmit important cooperative information for decision making, customer service and business operations (Weber, 2009).

### Monitoring

Monitoring is the fifth component that ensures all the components internal control system continues to operate effectively (Ayagre et al., 2014). Thus, periodic assessment of the effectiveness of internal controls by managers, internal auditors, and external auditors is one of the monitoring activities (Dickins et al., 2009). Studies by Dickins et al. found that monitoring in financing system should be implemented from the beginning to the end of process. For example, supervision mechanism can be done by appointing external auditor to monitor the customer's activities in use fund.

Therefore, monitoring components must be implemented in both corporate and cooperative boards to monitor the performance of management, to form long-term strategic plans, to evaluate proposals presented by management and to observe the financial and strategic actions undertaken by them. The checking on performance of overall internal control systems can be followed-up by implementing monitoring components because it plays as a circle that improved control activities, information systems as well as control environment (Dickins et al., 2009).

**Establishment of internal control system**

Attwood and Stein (1981) argue that every business has some kind of accounting system by which transactions are processed, and records of those transactions maintained. Millichamp (2002) further stipulates that management establish internal control system, either directly or by means of external consultants, internal audit, or accounting personnel. It follows that management is responsible for designing controls in order to carry on the business of the enterprise in orderly and efficient manner, ensure adherence to management policies, safeguard its assets and secure as far as possible the completeness and accuracy of the records. The above responsibility stems from the fiduciary responsibility of management.

Internal controls are designed to suit the purpose of management. It must be noted, however, that even though the establishment of internal control system is purely a managerial function and the internal audit department contributes significantly in the design of these controls. Since Internal Auditors are professionals who possess the necessary skill to evaluate the potential impact of any control system to be instituted, their input is vital in establishing effective internal controls.

### Objectives of internal control systems

According to Howard (1984), increasing attention has been paid to the methods of internal control in recent years. He argues further that not only the complexity of modern business techniques but also the increased size of business units have encouraged the adoption of methods which, whilst increasing the efficiency of the business, also act as safeguards against error or fraud. The objectives that internal controls must meet to prevent errors and to be efficient so as to provide reasonable assurance are that:

- Recorded transactions are valid. The system should not permit the inclusion of fictitious or non - existent transactions in accounting records.
- The transactions are properly authorised. The system should ensure that transactions are properly authorized.
- Transactions are recorded. The procedures must provide controls to prevent omissions of transactions from the records.
- Transactions are properly valued. An adequate system must include procedures to avoid errors I calculating and recording transactions at various stages in the recording process.
- Transactions are properly classified. Proper account classification accounting to appropriate categories or divisions must be ensured by the system.

- Transactions are recorded at the proper time. The recording of transactions either before or after the time they took place increases the likelihood of failing to record transactions or recording them at the wrong amount. Therefore, effective control system should ensure timely recording of transactions.

## Empirical Review

A number of studies have identified relationship between internal control systems and companies profitability in both industrial and financial sectors. Most of these studies can be used as a basis for studying free zone companies. There are therefore abundant empirical findings on the relationship between internal control systems and companies' profitability.

Ayagre, Appiah-Gyamerah and Joseph (2014) researched the effectiveness of Internal Control Systems of banks: The case of Ghanaian banks. This study evaluated the control environment and monitoring activities components of Internal Control Systems of Ghanaian Banks using COSO's principles and attributes of assessing the effectiveness of internal control systems. The study found out that, strong controls exist in the control environment and monitoring activities components of the internal control systems of banks in Ghana. The study recommended that boards of banks in Ghana should not be complacent about the findings but should work hard to ensure continuous ongoing and separate internal control monitoring to ascertain that controls really exist and are functioning properly.

Hayali, Dinc, Sarih, Dizman and G (2014) studied the importance of internal control system in the banking sector: Evidence from Turkey. In this study, the importance of internal control system was expressed, also its impacts to the banking system analyzed. The research showed that the internal control activities of the banks are adapted to the international standards in Turkey and effective control procedures existed in the banking system. In addition, efficient internal control mechanisms have great impact on the strong and stable outlook of Turkish banking sector.

Bayyoud and Sayyad (2015) studied the impact of internal control and risk management on banks in Palestine. The investigation helped in identifying the impacts of new banking reformations and rules on the risk assessment, identification, and mitigation in banks. The findings showed that overall internal control and risk management systems in Palestine have positively affected the banks in terms of quantitative as well as qualitative performance.

Magara (2013) undertook to study the effect of internal controls on the Financial Performance of deposit taking Savings and Credit Cooperative Societies (SACCOs) in Kenya. The study used the control environment, risk assessment, control activities and monitoring to proxy internal control. They contributed positively to the financial performance of SACCOs in Kenya.

Nyakundi (2014) conducted a research on the Effect of internal control systems on financial performance of small and medium scale business enterprises in Kisumu City, Kenya. Based on the findings of the study, internal control systems significantly influence the financial performance of SMEs.

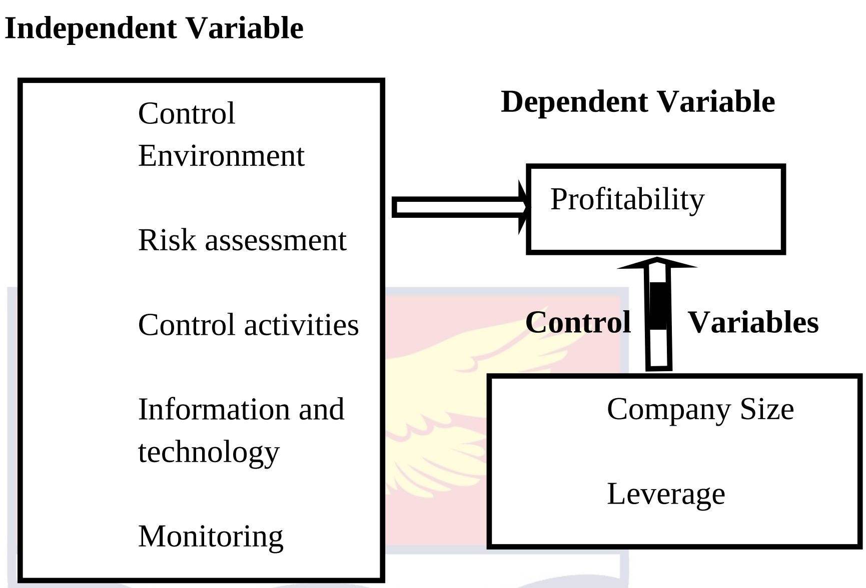
The study also revealed that there were challenges in the implementation of internal controls especially considering that the internal audit function which is the backbone of internal controls is not adequately equipped by the technical manpower required, which clearly has affected their efficiency. Inadequate financial resources have also accelerated to their inefficiency, reflected by irregular audit activities as well as absence of regular reports. The study revealed shortcomings of business knowledge of entrepreneurs in ICSs. The study finally concluded that there is a significant positive relationship between internal control system and financial performance.

Ndiwa and Kwasira (2014) carried out a study guided by the Agency Theory to test empirically the effects of internal control on financial performance in tertiary institutions in Kenya. The study used a case study research design. The findings showed that the institution's Internal Audit Department inadequately staffed. It recommended The Internal Audit Department sufficiently staffed, and the recruitment process of the auditors should be free from the management influence.

Ireri and Wagoki (2014) carried out a study to establish the role of internal control system components in Kenyan public universities. The study found out that there were internal control mechanisms in the Kenyan universities but they were ineffective. The study recommended the strengthening of training and guidance in internal control systems to ensure that all employees not only were aware of controls but actively participate in their effectiveness.

## Conceptual Framework

This framework has been taken from the theoretical principles of the research in which the variables such as control environment, risk assessment, control activities, information and technology, monitoring, company size, and leverage have been considered as independent variables and the variable such as profitability has been thought of as the dependent variable.




Source: Author's Construct

The above framework depicts that effective and efficient internal control systems lead to efficient financial management which in turn lead to improved profitability ratios. From the above conceptual frame, profitability can be seen to be influenced by the indicators or variables.

## Chapter Summary

Reviews of literature indicated that internal control systems have positive effect on performance (Mawanda, 2008; Mary et al., 2014). For example, Hanim et al. (2005) have determined the effects of internal control system on performance of audit work. They found that every components in internal control system positively influenced performance of audit work and audit reporting of the internal audit reporting. Besides that, Ayagre et al. (2014) concluded that aggressive mechanisms of internal control systems have to adopt for achieving better performance over time. In cooperatives sector, performance are measured by looking at the profitability that can be divided into two types: Gross profit that generates from every ringgit of income earned by the cooperatives and net profit that measures the efficiency of cooperative in managing the operating expenses. In order to strengthen organization's position in the market as well as optimize profitability, management should introduce a really effective system of internal control to avoid mistakes and fraud (Lakis & Giriūnas, 2012). Mwambwa (2015) asserts that to increase the profitability and efficiency of organizations, the management should have good corporate governance. Then, it will enhance the ability to create wealth for shareholders, opportunities to increase employment with better terms for workers and benefits to stakeholders.

Therefore, the purpose of the above literature review was to review the effect of internal control systems on profitability free zone companies in the Adeiso District in the Eastern Region of Ghana. The chapter discussed the influence of control environment, risk assessment, control activities, information and technology, size, and leverage on profitability. Perspectives of different scholars and researchers were presented so as to establish what had already been done that was relevant for the study. On both the theoretical and empirical side, the literature revealed that profitability is greatly influenced by internal control system variables. Indeed, empirical studies on analysing the determinants of profitability for developing countries cases including Ghana using quantitative approach have been very elusive.

# CHAPTER THREE

# RESEARCH METHODS

## Introduction

This chapter presents the research methodology to be employed in the study. This includes the research approach, research design, study area, target population, sample size, sampling and sampling technique, data collection instrument, data collection procedure, and data processing and analysis.

## Research approach

The research approach suitable for this study is quantitative approach. The quantitative approach is usually associated with deductive approach (Saunders, Lewis & Thornhill, 2003; Bryman & Bell, 2007). The emphasis on quantitative methods is to have objective "outsider view" and a distance from data. The nature of this study demands a quantitative approach in order to establish a relationship between then variables understudy. One of the advantages of quantitative research approach is that it allows the study of relationship between the variables understudy in a highly economical way.

## Research design

Since the study is quantitative in nature and is focused on a particular free zone company, the research design used in the study. This research design is a very useful way of investigation into the casual relationship of social phenomena. This research design fits the objectives of the study, as the study tries to investigate the impact of internal controls systems on profitability of free zones enterprises with HPW Fresh & Dry Ltd and Bomarts Ltd as case study. HPW Fresh and Dry Ltd and Bomarts Ltd were selected for the study from the many free zones enterprises due to the geographical location and their mode of operation. Research tools like questionnaires and interview guide were used to gather primary data for the research.

## Study area

Adeiso is located in the Eastern Region which is quite big. It is made up many businesses and firms and has large population. The town is very busy and is noted for business activities attracting people from all over its shores. HPW Fresh and Dry Ltd and Bomarts Ltd are among the key companies located in this area employing about 2000 direct staff and also engaging over 5000 peasant farmers in this area.

This area is specifically chosen for this study because it is where many firms particularly free zone companies in the Eastern Region are located which makes it easier for soliciting information needed to achieve the objectives of the study. The majority of its constituent firms have established for themselves enviable reputations as premier centers which have led to the success of some of the firms in the area.

## Population

The target population for the study is management and staff of HPW Fresh and Dry ltd and Bomarts Ltd. The choice of these two free zone companies is as result of contribution and operations in the said community. This is because these categories of people have the information necessary for the study. For this study, the population of 182 (Companies Data base) from both companies is recorded to draw a reasonable conclusion.

## Sampling procedure

The selection of elements from a big population was according to Krejcie and Morgan (1970) method of sample size determination as can be seen from the Table 1.

**Table 1:** Categories of samples

| **Institution** | **Population** | **Sample Size** |
|---|---|---|
| Management of HPW Fresh & Dry Ltd | 11 | 11 |
| Supervisors of HPW Fresh & Dry Ltd | 25 | 24 |
| Finance & administrative staff of HPW Fresh & Dry ltd | 30 | 28 |
| Other clerical staff HPW Fresh & Dry Ltd | 50 | 44 |
| Management & of Bomarts Ltd | 11 | 11 |
| Supervisors of Bomarts Ltd | 10 | 10 |
| Finance & administrative staff of Bomarts ltd | 25 | 24 |
| Other clerical staff of Bomarts ltd | 20 | 19 |
| Total | 182 | 171 |

Source: Companies' Data (2018)

Simple random sampling and purposive techniques would be used. These techniques were used depending on which kind of respondents the study targeted. Random sampling would be used for selecting the employees of HPW Fresh & Dry Ltd & Bomarts Ltd. Numbers 1 and 2 will be written on small pieces of paper and squeezed to conceal the figures at first sight. The small pieces of paper will then be mixed in a basket where by each person will be asked to pick one piece of paper. Those who will pick the lucky number 2 will be given the questionnaire and those who will pick the unlucky number 1 will be not given. For the management and the board of directors, purposive sampling will be used. The reason for this type of sampling is for purposes of getting the information from the people thought to possess it. This method is chosen to enable the researcher to elicit vital and quality information from respondents who have reasonable knowledge about the issues under investigation and were in position to provide the information needed for the study.

## Data collection instruments

In this study, both structured and semi-unstructured questionnaires as primary data collection methods were used to collect the data. Questionnaires are data collection instruments that enable the researcher to pose questions to subjects in his/her search for answers to the research questions. The questionnaires contained both closed and opened ended questions. A covering letter will be attached to the questionnaire to assure respondents of their anonymity. A consent form was also attached to the questionnaire. In addition, the Likert scale format will be used. A Likert scale format involves the use of a special rating scale that asks respondents to indicate the extent to which they agree or disagree with a series of statements about a given subject (Sekaran & Bougie, 2003). However, the questionnaire will be pretested on a smaller size of the sampled respondents for the research. This is to ensure that the questionnaires designed solicited the appropriate responses from the respondents to answer the research questions for the achievement of research stated objectives. The use of closed end as well as opened ended questions allowed the researcher to make easy categorization and analysis.

## Data Collection Procedures

To extract the maximum attention and involvement of the respondents in the study, data will be collected by administering the interview guide and questionnaires to the participants at their workstation. The procedure involves the steps below. First a letter of consent will be dispatched to seek the approval of the study. The participants will not only be briefed on the purpose of the study with no use of deception but also informed on the academic purpose of the study hence encouraged to provide their candid information on the questions. A period of about two weeks will be set for the interview with these stakeholders.

## Regression Analysis

Aside the descriptive analysis, a simple regression analysis will be conducted to show the actual effects of internal control systems on profitability. This involves both the focus and control variables. The simple regression equation is specified below:

$$ROA_{i,t} = \alpha + \beta_1 CE_{i,t} + \beta_2 RA_{i,t} + \beta_3 CA_{i,t} + \beta_4 IT_{i,t} + \beta_5 SIZE_{i,t} + + \beta_5 LEV_{i,t} + \varepsilon_{i,t} \quad \textit{1}$$

Assumption about the model;

Where $\varepsilon_{i,t} \sim iid(0, \sigma_\varepsilon^{\ 2})$ and $\mu_{i,} \sim iid(0, \sigma_\mu^{\ 2})$

and

$ROA_{i,t}$ = Return on asset for individual firm at time t

$CE_{i,t}$ = Control environment for individual firm at time t

$RA_{i,t}$ = Risk assessment for individual firm at time

$CA_{i,t}$= Control activities at time t for individual firm

$IT_{i,t}$ = Information and Technology at time t for individual firm

$SIZE_{i,t}$= Company size at time t for individual firm

$LEV_{i,t}$= Leverageat time t for individual firm

α = Constant (the intercept, or point where the line cuts the Y axis when X=0)

β = Regression coefficient (the slope, or the change in Y for any corresponding change in one unit of X)

ε = Within-Firm error

i = Firm

t = time

The apriori expected signs of the variables in two models are:

$\beta_1$> 0, $\beta_2$> 0, $\beta_3$>0, $\beta_4$> 0, $\beta_5$> 0, and $\beta_5$< 0

## Data sources

Both secondary data and primary data sources will be used for the study. Secondary data will be sourced from the annual reports of the firms whereas primary data were sourced from the questionnaire from the field specifically from the respondents of the selected firms on the selected variables.

## Reliability and validity

These are very important concepts in research especially in primary studies. When results from a study are not reliability and valid, the conclusions and recommendations are void. To achieve reliability of the results, the study follows the widely used statistical test known as Cronbcah alpha to assess the level of reliability. Although studies do not have a specific Cronbach alpha score, a score of closer to 0.7 and above is assumed to be relatively reliable (Pallant, 2007). The study also relies on both theoretical indicators and empirical measurements which have been validated to design the questionnaire to enhance the validity. Moreover, pre-test is also conducted to ascertain any shortcomings in the instrument and subsequently review the instruments to reflect the needed changes.

## Ethical considerations

The study will on the responses of respondents. This study seeks to comply with ethical standards devoid of any liabilities to the respondents and also administer clear questionnaire intended to derive the needed response. Thus, the study will assure the respondents that whatever they will say by way of information will remain confidential. The purpose of the study will be explained to the respondents. This will be done to avoid deception. Not only the above, the study also seeks to consent of the appropriate authorities before collecting the data. As a result, the respondents will give out information voluntarily for the study. The goal of ethics in research is to ensure that no one is harmed or suffered adverse consequences from participating in research activities.

## Data processing and analysis

The responses to the questionnaires were first captured to form a data set and thereafter the responses were analysed using the latest version of the Statistical Package for Social Science (SPSS) version 21 for Windows. The unstructured questionnaire was using narrative statements from the respondents. Regression analysis will be done to depict the effect of internal control systems on profitability.

## Pre-testing analysis

This section presents the results pre-testing based on the collected from thirty (30) respondents in a different setting in the Suhum Community as a way of shaping the current study.

## Demographics of the respondents

This aspect presents the demographics of the respondents contacted during the data collection exercise.

Table 2 presents the gender of the respondents. From Table 1, the results indicate that Twenty (20) of the respondents representing about (66.7%) were males whereas Ten (10) of them representing (33.3%) were females. Thus, this implies that male respondents were more than their female counterparts in the area. This means that males are mostly found working in the finance departments in firms than their female counterparts.

**Table 2: Gender of the respondents**

| Gender | Frequency | Percent |
|---|---|---|
| Male | 20 | 66.7 |
| Female | 10 | 33.3 |
| Total | 30 | 100.0 |

Source: Field data (2018)

Table 2 also presents the age categories of the respondents in the area. From the results, it can be seen that Fifteen (15) of the respondents representing about (50%) were between the ages of 40 to 49 years while Eight (8) of the respondents representing about (26.7%) were between the ages of 30 to 39 years. In addition, Five (5) of the respondents representing about (16.7%) were between the ages of 20 to 29 years. Finally, Two of the respondents (2) representing about (6.6%) were 50 years and above.

**Table 3: Age of the respondents**

| **Age** | **Frequency** | **Percent** |
|---|---|---|
| 20-29 | 5 | 110.7 |
| 30-39 | 8 | 2m.7 |
| 40-49 | 15 | 50.0 |
| 50 and above | 2 | 10.7 |
| Total | 30 | 100.0 |

Source: Field data (2018)

Furthermore, the results in Table 2 show that the respondents between the ages of 40 and 49 years were more followed by those between the ages of 30 and 39 years up to those who were 50 years and above. This implies that majority of the respondents were in their youthful age and for that matter they can contribute immensely to the success of the firms. Descriptive statistics for Internal Controls Variables

**Table 4: Descriptive statistics**

| Statement | Mean | Std. Dev. |
|---|---|---|
| Management is committed to the operations of the system | 3.50 | 1.0109 |
| Management closely monitors implementation of internal control system in the firm | 3.38 | 1.0101 |
| Appropriate measures are taken to correct misfeasance in operation of accounting and financial management system | 3.103 | 0.9110 |
| Management has put in place mechanisms for mitigation of critical risks that may result from fraud | 3.38 | 0.9110 |
| Staff are trained to implement the accounting and financial management system | 3.25 | 1.035 |
| Controls are in place to exclude incurring expenditure in excess allocated funds | 3.88 | 0.1041 |
| There is constant control of effectiveness of all operations | 3.75 | 0.707 |
| The organization's return on equity improved for the past years due to effective internal controls | 3.50 | 0.7510 |

Field Data (2018)

From Table 4, it can be realised that, the means of the selected variables are high, which are also more than their standard deviations indicating the absence of variability (outliers) among the variables understudy. The results in Table 5 indicate that, all the internal control variables selected are statistically significant in influencing the profitability of the firms. This implies that proper internal control systems have the potential of improving the profitability of a firm.

**Table 5: Regression results (Dependent variable: Profitability)**

| **Model** | Unstand. Coef. B | Unstand. Coef. Std. Error | Stand. Coef. Beta | T | Sig. |
|---|---|---|---|---|---|
| Constant | 0.313 | 0.091 | | 3.440 | 0.002 |
| There is constant control of effectiveness of all operations | 0.1041 | 0.081 | 0.513 | 7.541 | 0.000 |
| Management constantly follow up on all operations | 0.238 | 0.075 | 0.145 | 3.173 | 0.003 |
| The firm has effective systems for efficient operations | 0.389 | 0.0105 | 0.389 | 5.985 | 0.000 |
| The reporting system on firm structures spell out all the responsibilities of each section/unit in the firm | 0.239 | 0.0410 | 0.350 | 5.1910 | 0.000 |
| All employees understand the concept and importance of internal controls including the division of responsibility | 0.405 | 0.078 | 0.490 | 5.192 | 0.000 |

Source: Field Data 2018

## Validity and reliability analysis

The results of the validity and reliability test conducted are presented in the Table below. From the Table it can see that Cronbach's Alpha is 0.1023 which is an indication that the results of the pre-testing are valid and reliable and for that matter the instruments used measured the intended variables in the study.

| Cronbach's Alpha | N of Items |
|---|---|
| .1023 | 30 |

## Chapter Summary

This chapter presented the research methods appropriate for conducting the study. This study followed Ayagre, et al. (2014), Hayali et al. (2014), Bayyoud and Sayyada (2015), Magara (2013), and Nyakundi (2014) to design the appropriate research instrument for the study. Questionnaire will be used for collecting the data from the field. The study uses primary data from the various cross-sections where a sample size of 171 respondents will be selected for the study. Both probability and non-probability sampling techniques will be used. Furthermore, the study adopts the deductive and used a case study research design to study the variables. Lastly, the data will be processed using the Statistical Product for Social Sciences (SPSS) software and analysis will be done using regression analysis.

# CHAPTER FOUR

# RESULTS AND DISCUSSION

## Introduction

This chapter presents the analysis of the data collected from the field. Specifically, it presents the findings of the study. This chapter is divided into sections. The first section deals with the demographics of the respondents while the second, third, fourth and fifth sections deal with the objectives of the study.

## Demographics of the respondents

This section presents the demographics of the respondents contacted during the data collection exercise. Table 10 presents the gender of the respondents. From Table 6, the results indicate that hundred (100) of the respondents representing about (58.5%) were males whereas seventy-one (71) of them representing (41.5%) were females. Thus, this implies that male respondents were more than their female counterparts in the area. This means that males are mostly found working in the finance departments in firms than their female counterparts.

**Table 6: Gender of the respondents**

| Gender | Frequency | Percent |
|---|---|---|
| Male | 100 | 58.5 |
| Female | 71 | 41.5 |
| Total | 171 | 100.0 |

Source: Field data (2018)

Table 7 also present the age categories of the respondents in the area. From the results, it can be seen that seventy (70) of the respondents representing about (40.9%) were between the ages of 40 to 49 years while fifty (50) of the respondents representing about (29.2%) were between the ages of 30 to 39 years. In addition, thirty (30) of the respondents representing about (17.5%) were between the ages of 20 to 29 years. Finally, twenty-one of the respondents (21) representing about (12.3%) were 50 years and above.

**Table 7: Age of the respondents**

| Age | Frequency | Percent |
|---|---|---|
| 20-29 | 30 | 17.5 |
| 30-39 | 50 | 29.2 |
| 40-49 | 70 | 40.9 |
| 50 and above | 21 | 12.3 |
| Total | 171 | 100.0 |

Source: Field data (2018)

Furthermore, the results in Table 7 show that the respondents between the ages of 40 and 49 years were more followed by those between the ages of 30 and 39 years up to those who were 50 years and above. This implies that majority of the respondents were in their youthful age and for that matter they can contribute immensely to the success of the firms.

Table 8 indicates the level of education of the respondents. From the results it can be shown that, seventy (70) of the respondents representing about (40.9%) were in the tertiary education rank whereas fifty (50) of them representing about (29.2%) were in the secondary/technical education rank. In addition, thirty (30) of the respondents representing about (17.5%) were in the s/middle rank level of education. Lastly, twenty (21) of them representing about (12.3%) were in the Primary education rank as indicated in Table 8.

This by implication suggests that majority of the respondents in the two companies contacted have high level of education which is good for human capital development and success of the companies as well as economic development within the community and the country at large.

**Table 8: Level of education**

| Level of education | Frequency | Percent |
|---|---|---|
| Primary | 21 | 12.3 |
| S/Middle School | 30 | 17.5 |
| Sch/Tech | 50 | 29.2 |
| Tertiary | 70 | 40.9 |
| Total | 171 | 100.0 |

Source: Field data (2018)

Table 9 indicates the categories of the employees within the companies contacted. The results showed that, one hundred (100) of the respondents representing about (58.5%) were working in the HPW fresh and dry company whereas seventy-one (71) of them representing about (41.5%) were found working in Bomarts Company. The results imply that majority of the respondents contacted were working in the HPW fresh and dry company indicating that the company has more people than Bomarts.

**Table 9: Name of company**

| Company | Frequency | Percent |
|---|---|---|
| HPW Fresh and Dry Ltd | 100 | 58.5 |
| BOMARTS | 71 | 41.5 |
| Total | 171 | 100.0 |

Source: Field data (2018)

## Descriptive statistics

Table 10 presents the results of the descriptive statistics on the variables under consideration. Respondents were presented with a set of measuring items captured under the objectives and respondents were to respond to each item using a five point rating scale measurement. Thus, from Table 10, an aggregated mean (M) and standard deviation (SD) were calculated for individual items in the questionnaire as well as the overall measuring indicator for the purpose of comparison.

As depicted in Table 10, the picture that emerged from the analysis of responses given by respondents suggested that on average, control environment relating to internal controls of the sampled companies has a mean and standard deviation of (M = 3.510, SD = 1.24) indicated by the statement "staff are trained to implement the accounting and financial management system" which is very high. In addition, respondents gave the quite high approval rating (M =3.44, SD = 1.13) to the statement "our organisation has an objective, independent and active audit committee". The next approval rating (M = 3.33, SD =1.32) was given to the statement that "management identifies risks that affect achievement of the objectives". Also, in terms of risk assessment's influence on profitability has a mean and standard deviation of (M = 3.32., SD = 1.09), followed by the statement "management has put in place mechanisms for mitigation of critical risks that may result from fraud" with mean and standard deviation (M = 3.33, SD = 1.14) and (M = 3.33, SD = 1.23) relate to the statement "controls are in place to exclude incurring expenditure in excess allocated funds". Finally, in terms of control environment relating the statement" our organisation has an accounting and financial management system" has a mean and standard deviation (M = 3.33, SD = 1.13). The results imply that within the companies, control activities of internal controls have a potential influence on profitability followed by other in that order.

**Table 10: Descriptive Statistics**

| Variables | N | M | SD |
|---|---|---|---|
| Our organisation has an accounting and financial management system | 171 | 3.44 | 1.13 |
| Our organisation has an objective , independent and active audit committee | 171 | 3.33 | 1.32 |
| Management identifies risks that affect achievement of the objectives | 171 | 3.32 | 1.09 |
| Management has put in place mechanisms for mitigation of critical risks that may result from fraud | 171 | 3.33 | 1.14 |
| Controls are in place to exclude incurring expenditure in excess allocated funds | 171 | 3.33 | 1.23 |
| Staff are trained to implement the accounting and financial management system | 171 | 3.510 | 1.24 |

Source: Field data (2018)

## Regression Results

### Effect of internal control environment on the profitability of free zone companies in Ghana

This section presented the regression results concerning the effect of internal control environment on the profitability of Free Zone Companies in Ghana which addressed the first objective of the study as indicated in Table 7. Here, control environment was measured using some dimensions on a rating scale as well as profitability. From Table 11, adjusted$R^2$ indicated that about (60%) of the variations in profitability was explained by the model which indicates a strong relationship between the independent variables and the dependent variable. Also, the coefficient of control environment is 0.0910 which is statistically significant at 5 percent significance level. This implied that a unit increase in control environment as a measure of internal controls will increase the profitability of companies understudy by 0.0910 percentage point holding all other factors constant. This implied control environment has a positive have a positive effect on the profitability of companies. These results confirmed the agency theory and the studies by Bayyoud and Sayyad (2015), Ratcliffe and Landes (2009), Dickins et al. (2009) and Ayagre, Appiah-Gyamerah and Joseph (2014) who found a positive relationship control environment and profitability of companies.

Furthermore, the coefficient of size of a company is also statistically significant at 1 percent significance level and it is positive at 0.2310. This means that, a unit increase in size of a company will increase profitability of the company by 0.2310 percentage point holding all other factors constant. This implied that increases in size of a company positively impacts on profitability.  In studies by Ongore and Kusa (2013), Fatma and Anis (2013) confirmed the results of this study and the institutional theory.

**Table 11: Regression results (Dependent variable: Profitability)**

| Variable | Coefficient | Std. Errors | T-statistic | Sig. |
|---|---|---|---|---|
| Constant | 2.880 | 0.218 | 13.238 | 0.000*** |
| Control Environment (CE) | 0.0910 | 0.045 | 2.022 | 0.035** |
| Size | 0.2310 | 0.037 | 6.243 | 0.000*** |
| Leverage | -0.2810 | 0.042 | -6.690 | 0.000*** |
| $R^2$= 0.701 | | | | |
| Adjusted $R^2$= 0.602 | | | | |

Note: *** and ** denote significance levels at 1% and 5%respectively.
Source: Field data (2018)

In the case of leverage (LEV), the coefficient is negative and it is statistically significant at 1 percent significance level which also implies that a unit increase in the leverage of the companies leads to -0.2810 percentage point decrease in the profitability of the companies at 1 percent significance level, all other things being equal. This is also consistent with the results of Ongore and Kusa (2013).

**Effect of risk assessment on the profitability of free zone companies in Ghana**

This section presented the regression results concerning the effect of risk assessment on the profitability of Free Zone Companies in Ghana which addressed the second objective of the study as indicated in Table 12. Here, control environment was measured using some dimensions on a rating scale as well as profitability. From Table 8, the adjusted $R^2$ indicated that about (87%) of the variations in profitability was explained by the model which indicates a strong relationship between the independent variables and the dependent variable. Also, the coefficient of risk assessment is 0.340 which is positive and statistically significant at 5 percent significance level. This implied that a unit increase in risk assessment as a measure of internal controls will increase the profitability of companies understudy by 0.340 percentage point holding all other factors constant. This implied risk assessment has a positive effect on the profitability of companies. These results confirmed the studies by Bayyoud and Sayyad (2015), Magara (2013) and Ayagre, Appiah-Gyamerah and Joseph (2014) who found a positive relationship risk assessment and profitability of companies. The results also confirmed the institutional theory.

Furthermore, the coefficient of size of a company is also statistically significant at 1 percent significance level and it is positive at 0.589. This means that, a unit increase in size of a company will increase profitability of the company by 0.589percentage point holding all other factors constant. This implied that increases in size of a company positively impacts on profitability. The results still confirm studies by Ongore and Kusa (2013), Fatma and Anis (2013) confirmed the results of this study.

**Table 12: Regression results (Dependent variable: Profitability)**

| Variable | Coefficient | Std. Errors | T-statistic | Sig. |
|---|---|---|---|---|
| Constant | 3.919 | 1.0710 | 3.659 | 0.022** |
| Risk Assessment (RA) | 0.340 | 0.089 | 3.820 | 0.019** |
| Size | 0.589 | 0.224 | 2.629 | 0.059* |
| Leverage (LEV) | - 1.325 | 0 .489 | -2.710 | 0 .053* |
| $R^2$= .881 | | | | |
| Adjusted $R^2$= .872 | | | | |

Note: ** and * denote significance levels at 5% and 10% respectively.

Source: Field data (2018)

Finally, the coefficient leverage is negative and it is statistically significant at 10 percent significance level which also implies that a unit increase in the leverage of the companies leads to -1.325 percentage point decrease in the profitability of the companies at 10 percent significance level, all other things being equal. This is still consistent with the results of Ongore and Kusa (2013).

### Effect of control activities on the profitability of free zone companies in Ghana

This section presented the regression results concerning the effect of control activities on the profitability of Free Zone Companies in Ghana which addressed the third objective of the study as presented in Table 9. Here too, control activities were measured using some dimensions on a rating scale as well as profitability. From Table 13, adjusted R square indicated that about (94%) of the variations in profitability was explained by the model which indicates a strong relationship between the independent variables and the dependent variable. Also, the coefficient of risk assessment is positive (2.027) and statistically significant at 5 percent significance level. This implied that a unit increase in control activities as a measure of internal controls will increase the profitability of companies understudy by 2.027 percentage point holding all other factors constant. This implied control activities have positive effect on the profitability of companies. Thus, well controlled business activities have the potential of increasing the profitability of a company. These results confirmed the studies by Bayyoud and Sayyad (2015), Nyakundi (2014), and Ndiwa and Kwasira (2014). This also confirmed the agency and institutional theories.

Furthermore, the coefficient of size of a company is also statistically significant at 1 percent significance level and it is positive at 0.317. This indicates that, a unit increase in size of a company will increase profitability of the company by 0.317 percentage point holding all other factors constant. This implied that increases in size of a company positively impacts on profitability.

The results still confirm studies by Ongore and Kusa (2013), Fatma and Anis (2013) confirmed the results of this study.

**Table 13: Regression results (Dependent variable: Profitability)**

| Variable | Coefficient | Std. Errors | T-statistic | Sig. |
|---|---|---|---|---|
| Constant | 5.1810 | 1.1088 | 4.6726 | 0.007*** |
| Control activities (CA) | 2.027 | 0.7085 | 2.861 | 0.042** |
| Size | 0.317 | 0.055 | 5.7636 | 0.003*** |
| Leverage (LEV) | -0.2510 | 0.052 | -4.827 | 0.001*** |
| $R^2$= .941 | | | | |
| Adjusted $R^2$= 882 | | | | |

Note: *** and ** denote significance levels at 1%, 5% respectively.
Source: Field data (2018)

Finally, the coefficient leverage is negative and it is statistically significant at 1 percent significance level which also implies that aunit increase in the leverage of the companies leads to -0.2510 percentage point decrease in the profitability of the companies at 1 percent significance level, all other things being equal. This is still consistent with the results of Ongore and Kusa (2013).

**Effect of information and communication on the profitability of free zone companies in Ghana**

This section presents the regression results concerning the effect of information and communication on the profitability of Free Zone Companies in Ghana which addressed the fourth objective of the study as presented in Table 14. Here too, information and communication were measured using some dimensions on a rating scale as well as profitability. From Table 14, the adjusted $R^2$ indicated that about (93%) of the variations in profitability was explained by the model which indicates a strong relationship between the independent variables and the dependent variable. Further, the coefficient of information and communication is positive (2.227) and statistically significant at 1 percent significance level. This implied that a unit increase in information and communication as a measure of internal controls will increase the profitability of companies understudy by 1.227 percentage point holding all other factors constant. This implied information and communication have positive effect on the profitability of companies. Thus, effective information and communication have the potential of increasing the profitability of a company. These results confirmed the studies by Nyakundi (2014) and Ndiwa and Kwasira (2014) and the institutional theory.

Furthermore, the coefficient of size of a company is also statistically significant at 1 percent significance level and it is positive at 0.5110. This indicates that, a unit increase in size of a company will increase profitability of the company by 0.5110percentage point holding all other factors constant. This implied that increases in size of a company positively impacts on profitability. The results still confirm studies by Ongore and Kusa (2013), confirmed the results of this study.

**Table 14: Regression results (Dependent variable: Profitability)**

| Variable | Coefficient | Std. Errors | T-statistic | Sig. |
|---|---|---|---|---|
| Constant | 4.483 | 1.331 | 3.3681 | 0.003** |
| Information and Communication (IC) | 1.227 | 0.335 | 3.6627 | 0.002*** |
| Size | 0.5110 | 0.058 | 8.810 | 0.000*** |
| Leverage (LEV) | -0.313 | 0.057 | -5.491 | 0.000*** |
| $R^2$= .952 | | | | |
| Adjusted $R^2$= 934 | | | | |

Note: *** and ** denote significance levels at 1%, 5% respectively.
Source: Field data (2018)

Finally, the coefficient leverage is negative and it is statistically significant at 1 percent significance level which also implies that aunit increase in the leverage of the companies leads to -0.313 percentage point decrease in the profitability of the companies at 1 percent significance level, all other things being equal. This is still consistent with the results of Ongore and Kusa (2013).

## Chapter Summary

This chapter presented the analyses of the data presented from the field based on the stated objectives. The results of the study showed that on average, control environment relating to internal controls of the sampled companies has a mean and standard deviation of (M = 3.510, SD = 1.24). In addition, respondents gave the quite high approval rating (M =3.44, SD = 1.13) to the statement “our organisation has an objective, independent and active audit committee”. The next approval rating (M = 3.33, SD =1.32) was given to the statement that “management identifies risks that affect achievement of the objectives”. Also, in terms of risk assessment’s influence on profitability has a mean and standard deviation of (M = 3.32., SD = 1.09), followed by the statement “management has put in place mechanisms for mitigation of critical risks that may result from fraud” with mean and standard deviation (M = 3.33, SD = 1.14) and (M = 3.33, SD = 1.23) relate to the statement “controls are in place to exclude incurring expenditure in excess allocated funds”. Finally, in terms of control environment relating the statement” our organisation has an accounting and financial management system” has a mean and standard deviation (M = 3.33, SD = 1.13).

Further, the study revealed that, control environment measured using some dimensions on a rating scale had a positive relationship with profitability. Also, it was found that risk assessment measured using some dimensions on a rating scale had a positive effect on profitability of companies. In addition, the study revealed a positive relationship between control activities and profitability of companies. Again, the results in relation to the effect of information and communication on profitability indicated a positive relationship between the variables. Finally, the results showed that size of the company and leverage had positive and negative effects respectively on profitability.

# CHAPTER FIVE

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## Introduction

The purpose of this chapter is to present the summary, conclusions and recommendations of this study. The summary presents a brief overview of the objective, research methods and findings made in the study. On the other hand, the conclusions encapsulate the overall outcomes regarding the findings of the study in the light of the research objectives and questions. The recommendations also present specific remedies to be implemented by specific institutions. The chapter also presents some suggestions for further research in the area of the above topic of interest.

## Summary

There is a general consensus that internal Control systems are used as management tools in financial management. However, many companies fail to recognize the importance of internal control and take its implementation for granted, which in return, manifests mostly in the reports of fraud and embezzlement in the insurance sub-sector. According to Baba (2010), internal control has significant effect on management and that the occurrence of fraud can drastically reduce the efficiency of an organization. Thus, the lack of effective internal control can result in misappropriation, fraud and material misstatement of funds and financial information. There have been several reports of fraud and other financial indiscipline in both public and private co-operations some of which have resulted in the collapse of some of these institutions.

Over the years, successive presidents of Ghana have acknowledge the impacts of fraud on the both the domestic and the international economy. Generally, empirical studies on the investigation on the effect of internal control systems on companies' profitability is very limited and not yet fully explored particularly in Ghana.

This study therefore investigated the effect of internal controls on profitability of free zone companies in Ghana. The study used across-section data set. The study employed both descriptive statistics and econometric techniques in analyzing the data to determine the effect of internal controls on profitability of then companies under investigation. The results of the study showed that on average, control environment relating to internal controls of the sampled companies has a mean and standard deviation of (M = 3.510, SD = 1.24). In addition, respondents gave the quite high approval rating (M =3.44, SD = 1.13) to the statement "our organisation has an objective, independent and active audit committee". The next approval rating (M = 3.33, SD =1.32) was given to the statement that "management identifies risks that affect achievement of the objectives". Also, in terms of risk assessment's influence on profitability has a mean and standard deviation of (M = 3.32., SD = 1.09), followed by the statement "management has put in place mechanisms for mitigation of critical risks that may result from fraud" with mean and standard deviation (M = 3.33, SD = 1.14) and (M = 3.33, SD = 1.23) relate to the statement "controls are in place to exclude incurring expenditure in excess allocated funds". Finally, in terms of control environment relating the statement "our organisation has an accounting and financial management system" has a mean and standard deviation (M = 3.33, SD = 1.13).

Further, the study revealed that, control environment measured using some dimensions on a rating scale had a positive relationship with profitability. Also, it was found that risk assessment measured using some dimensions on a rating scale had a positive effect on profitability of companies. In addition, the study revealed a positive relationship between control activities and profitability of companies. Also, the results in relation to the effect of information and communication on profitability indicated a positive relationship between the variables. Finally, the results showed that size of the company and leverage had positive and negative effects respectively on profitability.

## Conclusions

The results obtained in this study clearly indicated that the objectives of analyzing the effect of internal control systems on profitability of free zone companies were achieved. Based on the results obtained in this study the following conclusions were reached;

First of all, concerning the first objective, the results indicated that, a unit increase in control environment as a measure of internal controls will increase the profitability of companies. This implied control environment has a positive effect on the profitability of companies.

Furthermore, the coefficient of risk assessment was positive and statistically significant at 5 percent significance level implying that a unit increase in risk assessment as a measure of internal controls will increase the profitability of companies understudy.

Moreover, the coefficient of control activities was positive and statistically significant at 5 percent significance level. This implied that a unit increase in control activities as a measure of internal controls will increase the profitability of companies. This implied control activities have positive effect on the profitability of companies.

The results indicated that information and communication was positive and statistically significant at 1 percent significance level. This implied that a unit increase in information and communication as a measure of internal controls will increase the profitability of companies. Therefore, information and communication have positive effect on the profitability of companies. Thus, effective information and communication have the potential of increasing the profitability of a company. Finally, the results showed that size of the company and leverage had positive and negative effects respectively on profitability.

## Recommendations

Based on the results obtained from the study, the following recommendations are made.

1. Control environment as measure of internal controls has a positive effect on profitability of free zone companies understudy. The study recommends that management of free zone companies should pay close attention to the control environment system as it has the potential of

influencing profitability. This can be achieved through properly putting in place good accounting and management system to avoid frauds.

2. Furthermore, the management of the various free zone companies should increase risk assessment strategy since it has an impact on profitability. This can also achieved through regularly assessing the risks associated with the companies' operations.

3. Also, control activities were significant in influencing profitability; therefore, management of free zone companies should make sure that activities relating to the operations of the companies are kept under control for achieving profitability. This can be through frequent monitoring of the various activities of the companies.

4. Additionally, information and communication had significant effect on profitability. There is the need for management of free zone companies to increase the information and communication channels for effective operations. This can be done through removal of any information and communication barriers within the companies.

5. Finally, company size and leverage were also significant in influencing profitability. Management of free zone companies should expand the size of their companies and reduce leverage for maximum profit.

**Suggestions for further research**

The study examined the effect of internal controls on profitability of free zone companies with specific focus on only two free zone companies. However, profitability has many determinants apart from internal controls, therefore future research could be geared towards examining the effect of other variables that have potential effect on profitability by considering using other rigorous econometric technique in studying the relationship among the variables. Furthermore, the dimensions for measuring internal controls could be researched into in order to identify their effects on the different dimensions of profitability.

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# APPENDICES

## APPENDIX A: QUESTIONNAIRE

**UNIVERSITY OF CAPE COAST**

**"THE EFFECT OF INTERNAL CONTROL SYSTEMS ON PROFITABILITY OF FREE ZONE COMPANIES IN GHANA: THE CASE OF HPW FRESH AND DRY LTD AND BOMARTS LTD"**

Dear respondent, I am a final year Master of Business Administration in accounting student of the University of Cape-Coast Business School. I appreciate your acceptance to participate in this exercise. This questionnaire is intended to gather sufficient data on the effect of internal control systems on the profitability of two free zone companies in Ghana. This research instrument is meant for managers and staff of the above-named free zone companies. Your objective response will help us to reveal the effect of internal control on profitability. We plead for your maximum co-operation. Be informed that the data obtained from this survey will be used for academic purposes only and therefore we assure you of utmost confidentiality. Thank you.

## SEECTIONA

## DEMOGRAPHIC CHARACTERISTICS

1. Please indicate your age

a) 19-30 ☐ b) 3 1-40 ☐ c) 41-50 ☐ d) 51-100☐ e) above 100 ☐

2. Please indicate your marital status?

a) Married ☐ b) Divorced ☐ c) Single ☐

d) Separated ☐ e) Widow/Widower ☐

3. Please indicate your gender a) Male ☐ b) Female ☐

4. Please indicate your level of education a) Primary ☐

b) JHS/Middle Sch. ☐

c) Sec. /Tech ☐ Tertiary ☐

e) Others, please specify……………………………………………………….

5. Name of your organization……………………………………

## SECTION B

## EXISTANCE OF INTERNAL CONTROL MEASURES

To what extent does your institution implement the following internal control measures?

Where 1= No extent; 2= little extent; 3= moderate 4= great extent; 5= very great extent.

| NO | INTERNAL CONTROL MEASURES | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| CEA | **Control Environment** | | | | | |
| CE1 | Our organization has an accounting and financial management system | | | | | |
| CE2 | Management is committed to the operation of the system | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| CE3 | Management closely monitors implementation of internal control system in our institution | | | | | |
| CE4 | Management provide feedback to junior officers about the operation of the system | | | | | |
| CE5 | Appropriate measures are taken to correct misfeasance in operation of our accounting & financial management system | | | | | |
| CE10 | Management acts with a great degree of integrity in execution of their roles | | | | | |
| CE7 | Ethical values are upheld in all management decisions | | | | | |
| CE8 | Our organization has an objective , independent and active audit committee | | | | | |
| CE9 | Our board of governors and its committees are independent of management | | | | | |
| CEB | **Risk Assessment** | | | | | |
| RA1 | Management has defined appropriate objectives for the organization | | | | | |
| RA2 | Management identifies risks that affect achievement of the objectives | | | | | |
| RA3 | Management has a criteria for ascertainment of which fraud related risks to the organization are most critical | | | | | |
| RA4 | Management has put in place mechanisms for mitigation of critical risks that may result | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | from fraud | | | | | |
| CEC | **Control Activities** | | | | | |
| CE1 | Our organization has clear separation of roles | | | | | |
| CE2 | Every employee's work check on the others | | | | | |
| CE3 | Corrective action is taken to address weakness | | | | | |
| CE4 | Staff are trained to implement the accounting and financial management system | | | | | |
| CE5 | Our organization has a well-developed Chart of Accounts | | | | | |
| CE10 | It is impossible for one staff to have access to all valuable information without the consent of Senior staff | | | | | |
| CE7 | Controls are in place to exclude incurring expenditure in excess allocated funds | | | | | |
| CE8 | Department have budget reviews where actual expenditure is compared with budgeted expenditure and explanations for the variances given | | | | | |
| CE9 | Our security system identifies and safeguard organizational Assets | | | | | |
| CEC | **Information and Communication:** | | | | | |
| IC1 | Management has identified individuals who are responsible for coordinating the various activities within entity | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| IC2 | All employees understand the concept and importance of internal controls including the division of responsibility | | | | | |
| IC3 | Our communication system helps to evaluate how well guidelines and policies of the organization are working and being implemented | | | | | |
| IC4 | The reporting system on organizational structures spells out all the responsibilities of each section/unit in the organization | | | | | |
| MNT | **Monitoring** | | | | | |
| MNT1 | Management has a strict supervisory role over all operations | | | | | |
| MNT2 | There is constant control of effectiveness of all operations | | | | | |
| MNT3 | There is effective internal audit of controls in the Organization | | | | | |
| MNT4 | There is an effective external audit systems in the firm | | | | | |
| MNT5 | Management constantly follow up on all operations | | | | | |

## SECTION C

## PROFITABILITY MEASURES

Please indicate the extent to which your institution achieves the following profitability measures.

Where 1= No extent; 2= little extent; 3= moderate 4= great extent; 5= very great extent.

| NO | PROFITABILITY MEASURES | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| ROA | **Return on Assets** | | | | | |
| RA1 | Our organization has strategies for achieving higher return on asset | | | | | |
| RA2 | Management is committed to getting reasonably returns on investment made | | | | | |
| **ROE** | **Return on Equity** | | | | | |
| RE1 | Appropriate measures are taken to increase the return on the organisation's equity | | | | | |
| RE2 | The organisation's return on equity improved for the past years due to effective internal controls | | | | | |
| EFF | **EFFICIENCY** | | | | | |
| EFF1 | The organisation has effective systems for efficient operations | | | | | |
| EEF2 | The productivity of the organisation improved due to effective and efficient operations | | | | | |