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EFFECTS OF INTERNAL CONTROL SYSTEM ON PERFORMANCE OF CONSTRUCTION COMPANIES IN YANGON

(A CASE STUDY ON DAGON TOWNSHIP)

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A thesis submitted as a partial fulfilment towards the requirement for the degree of Master of Banking and Finance (MBF)

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ABSTRACT

The study is about the effects of internal control system on performance of construction companies in Yangon. There are two main objectives in this study. These are to identify the practices of internal control system and to examine the effects of internal control system on performance of construction companies in Yangon. This study adopted regression analysis and selected a sample of 20 construction companies representing 43% of a target population of 46 construction companies in Dagon Township. The main tool of primary data is questionnaires which are distributed to 79 respondents from management committee members or department heads of sample 20 construction companies in Dagon Township. As a result, the findings of the study indicated that most construction companies performed well in inventory control, cash control, quality control and budget review. But they are weak in providing training to employees, communicating information to all personnel, and conducting procurement process with no conflict of interest. The findings revealed that there is a positive relationship between internal control system and performance of construction companies at Pearson correlation coefficient. The statistical results from the regression analysis show that control environment, risk assessment and monitoring had significant relationship with non-financial performance, and control environment and monitoring had significant relationship with financial performance. This study suggested that management of the construction companies should modify accordingly proper control practices aligned with potential risk and should regularly review the whole internal control system whether it is effective within the business to get the best performance.

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AAA   -   American Accounting Association

AICPA   -   American Institute of Certified Public Accountants

COSO   -   Committee of Sponsoring Organizations of the Treadway Commission

FEI   -   Financial Executives International

IIA   -   Institute of Internal Auditors

IMA   -   Institute of Management Accounts

CHAPTER I
INTRODUCTION

The construction industry is an important industry which contributes greatly in economic growth of a nation. Government cooperates with construction industry to develop the necessary infrastructure. There are no developed countries without access to well-functioning infrastructure. Well-constructed infrastructure provides essential services to societies and industries, for instance, transportation networks, telecommunications, energy production and distribution, water systems and so on. It can offer job opportunities to millions of unskilled, semi-skilled as well as skilled work force, and attract many inward investors for business deals. It also improves national productivity and the living standards of people, and needs to ensure that there is an effective set of internal controls in place designed not to waste scarce resources.

One of the construction businesses' targets is to maximize their operational efficiency by lowering costs, frauds, defects and overproduction. The performance of construction organization can be classified into financial performance and non-financial performance. Financial performance can be measured in terms of costs, budget, cash flow and profitability, and non-financial performance can be determined by quality, safety, completion period, project team satisfaction and customer satisfaction. The main thing to acquire the best performance of an organization is that its internal environment such as people, systems, structures and conditions inside the organization must be properly coalesced. In order to harmonize departments within the organization without any dissipation, a strong internal control system needs to be constructed.

Setting up a system of internal control is a fundamental step to meet valuable benefit such as reducing risks for occupational fraud and error, ensuring accurate financial reporting and increasing operating efficiencies. In other words, strong internal control system is a mechanism that is well integrated with policies, procedures, flowcharts and its job descriptions. Therefore, department managers are responsible for establishing and maintaining control environment, and all employees need to be aware of purpose of the internal controls. A successful internal control system will help streamline the processes and improve the quality of services. On the other hand, opportunities for fraud, waste, and abuse increase significantly in a weak internal control environment.

Therefore, a clear understanding of effective internal control system is a key to open the door of the organization's success.

1.1 Rationale of the Study

In Myanmar, construction sector quickly become essential as one of the parts of nation's development to facilitate required buildings and structures for agriculture, education, healthcare, economic zone, transportation, housing, public recreation and so on. Construction companies are working at risk in facing unexpected losses that will affect the performance of construction work. They are always trying to defend from lots of careless mistake and fraud schemes on their everyday jobs such as inventory damage, theft and misappropriation of physical assets, over-purchase of materials, bogus billing, cash misappropriation and unreliable financial statements. The important step is to make sure an adequate internal control that help to reduce losses from scams and errors. American Institute of Certified Public Accountants (AICPA) (2014) asserts that effective internal control reduces the risk of asset loss, and helps ensure that plan information is complete and accurate, financial statements are reliable, and the plan's operations are conducted in accordance with the provisions of applicable laws and regulations.

Construction organizations seek to reach the optimal level of their performance by balancing quality and cost. That means they want to maintain quality, and deliver their products or services in the most cost-effective way. As internal control system can deter duplicated work, unwanted fraud and unnecessary costs, it is a key driver as a cost-effective approach. However, there may be poor performance even though the firms established the appropriate internal control system. Although the internal control system is highly formalized in some large construction corporations, some are still used to overlook the conception of internal controls because they may not completely understand the system's benefits, or there are some constraints in implementation of strong internal control system. According to Hayes et al., (2005) quoted by Mawanda (2008), the likelihood of achievement is affected by limitations inherent in all systems of internal control. Actually, the internal control system will not absolutely end all sort of frauds, errors and white-collar crime, though it is an essential guide throughout the journey towards victory. That is why, the focal point of this study is to explore the practice of the

internal controls in construction firms and to study its effects on performances of construction companies.

1.2   Objectives of the Study

This study endeavours to achieve the following objectives.

(1) To identify the practices of internal control system in construction firms

(2) To examine the effects of internal control system on performance of construction firms.

1.3   Scope and Method of the Study

The population chosen for this study was 46 construction firms located in Dagon Township, Yangon. This study selected randomly 20 out of 46 construction firms representing 43% of the target population. The primary data were collected by using 42 structured questionnaires targeted on management committee members, departmental heads, finance and accounts head in selected construction companies. The secondary data were gathered from reports published for construction industry, internet website and other relevant studies. The study adopted regression analysis and focused to find out the impact of internal control system on performance of construction service firms.

1.4   Organization of the Study

There are five main chapters organized in this study. Chapter 1 concerns the introduction of the study including rationale of the study, objectives of the study, method of the study, and organization of the study. Chapter 2 presents the theoretical background of the internal control system. Chapter 3 provides profile of construction companies in Dagon Township, and chapter 4 describes data presentation and data analysis on the effect of internal control systems on performance of construction companies. Finally, the summary of findings, suggestion and further study stemming from this study are mentioned in chapter 5.

CHAPTER II

THEORECTICAL BACKGROUND OF THE STUDY

This chapter introduces the definition and types of internal control system and components of an internal control system that provide a systematic procedure to achieve the organization's goals. Additionally, the effectiveness and limitation of an internal control system are described. Also, the previous study of internal control system and conceptual framework of the study are expressed.

2.1 Definition of Internal Control System

In business dictionary, internal control is described as systematic measures such as reviews, checks and balances, methods and procedures instituted by an organization to conduct its business in an orderly and efficient manner, safeguard its assets and resources, deter and detect errors, fraud and theft, ensure accuracy and completeness of its accounting data, produce reliable and timely financial and management information, and ensure adherence to its policies and plans. Internal control is the process affected by an organization's structure, work and authority flows, people and management information systems, designed to help the organization accomplish specific goals or objectives (Schroy, 2010 quoted by Adu Frimpong, 2015).

The American Institute of Certified Public Accountants (AICPA) states that internal control is the plan of organization and all of the coordinate methods and measures adopted within a business to safeguard its assets, check the accuracy and reliability of its accounting data, promote operational efficiency, and encourage adherence to prescribed managerial policies.

The Committee of Sponsoring Organizations of the Treadway Commission (COSO), which is a joint initiative of the five private sector organization including IMA, AAA, AICPA, IIA and FEI, released the globally accepted integrated internal control framework. COSO defines internal control as a process, effected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following three categories:

  (1) effectiveness and efficiency of operations,
  (2) reliability of financial reporting and

(3) compliance with applicable laws and regulations.

Although there are many definitions of internal control system, the main purpose is to minimise potential loss and to provide reasonable assurance regarding the achievement of business's objectives with systematic way. Thus, understanding the concept of an internal control system is important for an organization. Based on the above definitions of internal control system, it may be summarily defined as an integration of people, systems, structures and policies designed to encourage incorruptibility and deter fraudulence for assuring accomplishment of an organization's operational and financial goals.

2.2   Types of Internal Control System

Internal controls coordinate with an organization's policies and procedure to encourage sound management practice. The types of internal control system can mainly be categorised as directive controls, preventive controls, compensating controls, detective controls, and corrective controls.

Directive Control System - Directive controls are established to reach desired outcome, which is related to policies, procedure, regulations, training seminars and job description. It helps to provide guidance for management's behaviour and decision as well as organization's policies and activities. To ensure compliance with directive controls, the control procedures from management need to prevail within the organization. Directive controls play critical role providing evidence that the preventive controls are functioning and preventing losses. (Di Napoli,1999 quoted by Douglas,2011).

Preventive Control System - Preventative controls are proactive controls to prevent loss or risk. Segregation of duties, physical control over assets, proper authorization, adequate documentation and having an effective control culture all fit under the category of preventive controls. Kenkel,2013 states that the balance between the inefficiency and inconvenience of the procedure must be balance against the possible risk when considering preventive controls. Excess controls increase the incentives to bypass or override the control procedure.

Compensating Control System - Compensating controls are also called alternative controls, that intended to make up for a lack of controls elsewhere in the system. For

example, firms with an electronic database could maintain a hard copy of the client list in the office library. Such hard copy would compensate for downtime in electronic systems or difficulty to find out the location of client list in electronic system.

Detective Control System - Detective controls are designed to discover the source of an error or irregularities after any problems have happened. Then they provide proof if any error has occurred, but do not prevent a loss from occurring. Detective controls also help to define potential issues for further review. Some examples of detective controls are reconciliation, internal checks, reviews of performance, surprise count of cash on hand and so on.

Corrective Control System - Corrective controls are aimed to address any occurred problems that were found by the detective internal controls. They are developed from observation of systematic problems. Once an error come out, employees need to go by any procedure that has been put in place to correct that error. Additional training and follow-up procedure and management action are examples of corrective controls.

2.3   Components of Internal Control System

A system of internal control brings up to running the business in environments that deter fraudulent activities by management and employees. To result a good internal control system, business needs to implement the common features of a proper internal control system. In 1992, COSO developed a model for evaluating internal controls, which is widely recognized as the definitive standard. The COSO defines five components of an internal control system linked to the organization such as control environment, risk assessment, control activities, information and communication, and monitoring. Control environment is the foundation of all other components of internal control system. Risk assessment is a process to identify and analyse potential hazards and impacts to be managed well. Control activities are a set of actions to mitigate risks and losses for the organization's achievement. Information and communication mean a system to gather the correct information and communicate it to the right person. Monitoring is a necessary part to check whether internal control system works well.

Figure (2.1) Components of the COSO Internal Control Framework

Source; COSO's Internal Control Integrated Framework.

In 2013, COSO updated its internal control – integrated framework having five components with a total of 17 principles that represent the fundamental concepts of the components to which they are associated.

Figure (2.2) Principles of Effective Internal Control System

Control Environment	1.Demonstrates commitment to integrity and ethical values 2.Exercises oversight responsibility 3.Establishes structure, authority and responsibility 4.Demostrate commitment to competence 5.Enforces accountability
Risk Assessment	6.Specifies suitable objective 7.Identifies and analyses risk 8.Assesses fraud risk 9.Identifies and analyses significant change
Control Activities	10.Selects and develops control activities 11.Selects and develops general controls over technology 12.Deploys through policies and procedures
Information & Communication	13.Users relevant information 14.Communicates internally 15.Communicate externally
Monitoring	16.Conducts ongoing and / or separate evaluation 17.Evaluates and communicates deficiencies

Source: Committee of Sponsoring Organizations of the Treadway Commission (COSO) 2013, Framework Overview.

2.3.1 Control Environment

Control environment is defined by the "tone at the top" regarding the expected standard of conduct and the importance of internal control. It comprises corporate mission, culture, standard, management's philosophy, integrity, ethical values, operating style, commitment to organizational competence. The control environment provides a background to detailed control procedure to ensure the effectiveness of the internal control system. If the tone set by management is lax, then fraudulent financial reporting is more likely to occur. (Noorevee, 2006). The five principle of COSO relating to the control environment components are as follows.

Principle 1 - The organization demonstrates a commitment to integrity and ethical values.

Principle 2 - The board of directors demonstrates independence from management and exercises oversight of the development and performance of internal control.

Principle 3 - Management establishes, with board oversight, structures, reporting lines, and appropriate authorities and responsibilities in the pursuit of objectives.

Principle 4 - The organization demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives.

Principle 5 - The organization holds individuals accountable for their internal control responsibilities in the pursuit of objectives.

2.3.2 Risk Assessment

Risk assessment is the process of identifying, analysing risks that threaten the accomplishment of objective and determining how those should be managed. When managements identify the risks, all of their possible impacts need to be considered. Risk assessment is a systematic process for integrating professional judgment about probable adverse conditions and events, and assessing the likelihood of possible losses (financial and non-financial) resulting from their occurrence (Douglas, 2011). There are four principles of COSO enclosing relevant points of focus on risk assessment component.

Principle 6 - The organization specifies objectives with sufficient clarity to enable the identification and assessment of risks relating to objectives.

Principle 7 - The organization identifies risks to the achievement of its objectives across the entity and analyses risks as a basis for determining how the risks should be managed.

Principle 8 - The organization considers the potential for fraud in assessing risks to the achievement of objectives.

Principle 9 - The organization identifies and assesses changes that could significantly impact the system of internal control.

2.3.3   Control Activities

Control activities are systematic mechanisms established through policies and procedures to address threat of business, to ensure management's directives and to complete the entity's objectives. Control activities include in all functions at all level of entity. Different types of control activities naturally exist in all organizations and there is evidence pointing to the importance of a balanced approach where different types of controls need to be applied (Simons, 1991 quoted by Arwing, 2013). Managements should build their control activities to be effective and efficient. The COSO sets three principles for control activities as follow.

Principle 10 - The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.

Principle 11 - The organization selects and develops general control activities over technology to support the achievement of objectives.

Principle 12 - The organization deploys control activities through policies that establish what is expected and in procedures that put policies into action.

Measures of control activities whether those are strong or not, effective or not depend on size and nature of the business, and management's assessment of the risk faced. Examples of control activities are separation of duties, approval and authorization, verification, supervision, safeguarding assets, documentation, reporting and computer systems controls such as backup system, and input control. Control activities are important to reduce waste and loss, and to fulfil business's desired targets.

2.3.4   Information and Communication

Information is necessary to be relevant, timely and reliable information relating to financial and non-financial from both external and internal sources to help the functioning of other components of internal control system. Communication supports to share quality information to the right person. Effective internal communication support quality information to flow up, down and across the organization. In external communication,

management can access information regarding potential risk, regulatory matters, changes in business trend. One important thing is that trustworthy information needs to be communicated in time. COSO defines principle 13, 14 and 15 for information and communication component of internal control system.

Principle 13 - The organization obtains or generates and uses relevant, quality information to support the functioning of other components of internal control.

Principle 14 - The organization internally communicates information, including objectives and responsibilities for internal control, necessary to support the functioning of other components of internal control.

Principle 15 - The organization communicates with external parties regarding matters affecting the functioning of other components of internal control.

COSO states that various types of internal information systems and reporting methods should support the understanding of processes, controls, tasks and individual responsibilities. It means that people can perform their internal control responsibility favourably if related information can be identified and timely distributed within the organization.

2.3.5   Monitoring

Monitoring is an appraising eye to watch the performance of internal controls over time. It should be ongoing monitoring that means business's process and procedure should be assessed regular basic i.e. daily or periodically. The scope and frequency may vary with business risk, nature and management's requirement and intentions. Monitoring is a necessary stage to evaluate the effectiveness and efficiency of the system of internal control system. The COSO's globally accepted internal control framework states monitoring activities with two principle 16 and principle 17.

Principle 16 - The organization selects, develops, and performs ongoing and/or separate evaluations to ascertain whether the components of internal control are present and functioning.

Principle 17 - The organization evaluates and communicates internal control deficiencies in a timely manner to those parties responsible for taking corrective action, including senior management and the board of directors, as appropriate.

One of the reasons of internal control deficiencies is due to the weak or lack of monitoring module in the business. COSO recognizes that the need for management to

monitor the entire internal control system through the ongoing activities built into the control system itself and through special evaluations directed at specific activities or areas.

2.4 Effectiveness of Internal Control System

In internal control system, positive effects are obvious as it leads to be a smooth-running business. Internal control system is a system constructed with check points and specific policies that direct business activities to minimize the chances of errors, unforeseen harms, fraud and lawsuits and insurance claims. Management can spot quickly where deceit or problems are occurring by applying internal controls. Having internal control system with specific standards, structure and procedures will help to employees to understand clearly their duties and responsibilities. It is a necessary system to ensure that assets are effectively utilized and saved from misappropriation, misuse and theft. Operating process and accounting records can become faster and more accurate due to systematic internal course of action so that management can analyse the performance of business from both financial and nonfinancial point of view. When internal controls are effective and efficient, they turn to critical factors which drive to improve efficiency in operations, increase financial reliability and integrity and ensure compliance with laws and regulations.

2.5 Limitation of Internal Control System

Internal control system can also have certain limitation that impact on the performance of the organization. As internal control system is set up by human being, there may be incorrect judgement, lack of proper explanation and bias. Within the duration of design and implementation stage, error of judgements may be resulted of inadequate information. Moreover, collusion could occur when two or more persons lends a hand each other to deceive the organization. Management may manipulate the operation of internal control system. Management overrides come out when senior manager bypass code of behaviour. There may be different opinions and objectives among employees in the departments and staff in charge of internal control. People in charge of controls who have lack of knowledge and honesty will ruin the efficiency of the internal control system. Furthermore, If the constructed internal control system is too rigorous to adapt for organization, it may be hard for sustainability. The company's auditors may also become overdependent on its internal control system without rigid checking and measure. There

will be duplication and delay of work when management arranges lots of checking point more than necessary. Another limitation is that resources cannot be fully available for every control activity so that organizations should properly utilize them to be effective internal control system. Otherwise, they will not experience the good result of control system.

2.6   Previous Study of the Internal Control System

This study refers to the research of Collins (2014) which was a research on effect of internal control system on financial performance of micro-finance institutions in Kisumu central constituency, Kenya. That study investigated and sought to establish the relationship between internal control systems from the perspective of Control Environment, Control Activities, and Information and Communication as independent variables. In contrast to financial performance (measured by liquidity) of micro-finance institution was proposed as dependent variable. In addition, there are intervening factors like Government Policies, Leadership and funding or Outreach.

Figure 2.3. Conceptual Framework of Reference Study
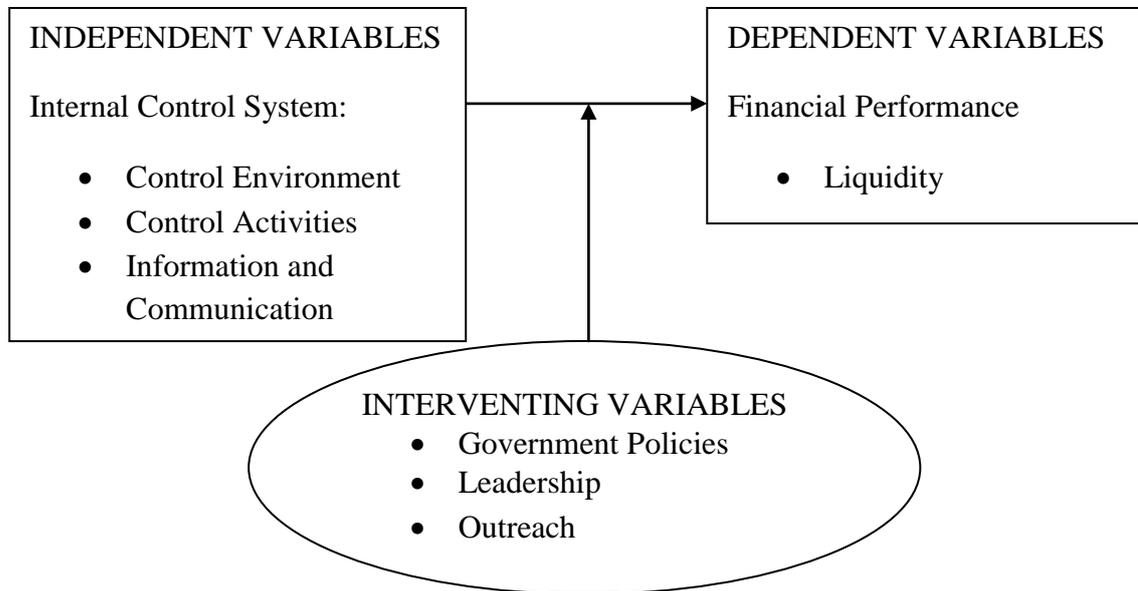
Source: Conceptual Framework (Collins, 2014)

The study of Collins was reported that it was concluded that the Micro-finance institutions in Kisumu have effective internal control system, and the liquidity position of the Micro-finance institutions is very appropriate. Thus, that study concluded financial position will be more excellent if the internal control system is effective.

2.7   Conceptual Framework of the Study

The conceptual framework of this study was developed based on previous study as per following Figure 2.4 constructed with independent variable (Internal Control System) and dependent variable (Performance).

Figure 2.4. Conceptual Framework of the Study
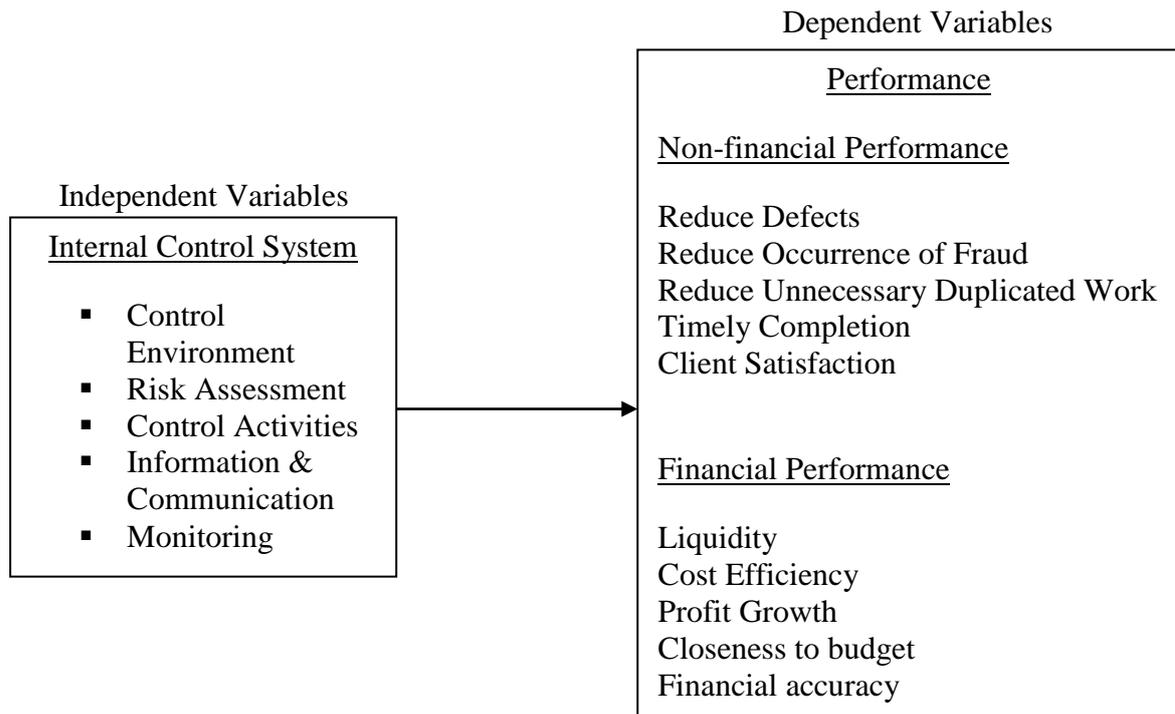
Source: Own Compilation, 2018

From the above Conceptual Framework, the study proposes that the components of internal control system are control environment, risk assessment, control activities, information and communication, and monitoring as independent variables. On the other hand, the study proposes non-financial performance (as measured by reduce defects, reduce occurrence of fraud, reduce unnecessary duplicated work, timely completion, and client satisfaction) and financial performance (as measured by liquidity, cost efficiency, profit growth, closeness to budget, and financial accuracy) as dependent variables. In this study, the concept framework proposes that the internal control system in construction companies affects their businesses' non-financial and financial performance.

CHAPTER III
PROFILE OF CONSTRUCTION COMPANIES IN DAGON TOWNSHIP

This chapter presents the overall picture of construction industry. It includes the role of construction sector and overview of construction industry in Myanmar. In addition, the brief profile of construction companies in Dagon township are also described.

3.1   Role of Construction Sector in Myanmar

Myanmar has revolved around a normal developing country after a rapid economic reform implemented since 2011. Myanmar's key challenges are to reduce poverty through rural development, generate employment for its people by encouraging a more dynamic private sector and provide improved health care and education services. Thus, government contracts with construction industry to develop infrastructure related to health, transport as well as education sector.

Construction is an important sector in the national economic development for the following reasons:

- To attract foreign investment that have a change to bring new technology with international standard.
- To boosts tourism industry by constructing luxury hotel, recreation centre, landmark building, by maintaining historical architecture, and so on.
- To create job opportunities since construction offers lots of job openings.
- To improve the standard of living by providing quality structures and facilities (e.g. buildings, roads, power supplies) needed for the society.

For that reason, government organized the Ministry of Construction responsible for the country's construction and maintenance of infrastructure, including roads and bridges. One objective of the ministry is that the construction industry to make able to gratify its infrastructural expansion missions that are crucial in nurturing the country's social and economic development, capable in generating strong bond with production and service providing sectors and be competent in the global market.

As Myanmar is hunting more foreign direct investments (FDI) from East Asia in the next 20 years under its new Myanmar Investment Promotion Plan, lack of adequate infrastructure may deter potential investors. Since infrastructure development as one of the foundational stages of the nation's economic growth, the government needs to decide what kind of infrastructure is in need in the short term or in the long term. Therefore, a plan for economic development, and building roads, bridges and other infrastructure has been developed, and the construction industry become an investment-led sector for the economy.

3.2   Overview of Construction Industry in Myanmar

Construction sector is one of the important sectors in the development of any nation as it has a strong linkage with other industries by providing necessary economic, social and institutional infrastructure and productive facilities. Government flagship programs such as the National Transport Master Plan, National Export Strategy (NES) and National Electrification Plan are the major contributors for industry growth for 2011-2015. During the period from 2012 to 2016, Myanmar's construction industry grew in positive trend. Since there would be the 2013 Southeast Asian Games (SEA Games) and 2014 Asian Summit in Myanmar, the growth in hotel, recreation centre, office building and condominium project increased significantly. However, there was a slowdown growth in 2016 as a result of political instability. Meanwhile, public sector investment in infrastructure, affordable housing project as well as construction of industrial zones supported the industry.

Government tried to attract the inflow of foreign direct investment (FDI) so that a large-scale of infrastructure is needed. To solve the infrastructure deficit in road network such as railway, ports and logistics, the government is executing the National Transport Master Plan 2014-2030, for a total investment of MMK26.7 trillion. The total amount of MMK11.7 trillion for road infrastructure, MMK6.5 trillion for rail infrastructure, and MMK8.5 trillion for inland water, seaport and airport infrastructure was allotted. Power generation, transmission and distribution become a very important and urgent issue to faces a shortage of power supply as well. Moreover, the expansion of information and communication technology (ICT) should be done to resolve the massive use of fax,

mobile and internet. The government also intends to develop in rural area and to improve social infrastructure to raise the living standard of people.

Myanmar's construction industry was planned to be healthier during 2016-2020. Growth will start by virtue of improvement in economic conditions, government investments for the evolution of public infrastructure projects and uplift in foreign investments. The Department of Urban and Housing Development under the Ministry of Construction planned to implement four mega infrastructure projects with facilities ranging from information technology manufacturing to logistics to commercial and residential on more than 13,000 acres of land in Yangon and near Mandalay.

The improvement of the country's economy relies on government investments in residential, public and infrastructure projects as well as foreign investment. The residential market in Yangon was quite undersupplied in recent years. For the reason that residential sales prices are too high and these vary considerably with factors such as size, location, land title and supporting facilities. According to the report of Timetric Construction Intelligence Centre (CIC) that has founded that residential construction market was the largest market in Myanmar during previous years because of government investment in affordable housing programs. Infrastructure construction is the second largest market in construction industry of Myanmar. According to the report during previous review period, it was 19.4% of total industry's value in 2015 as the market rose 46% from 2011 to 2015. Also, the report forecasts the infrastructure market will remain the position and growth situation since the government efforts to improve this segment.

Additional thing of the growth of construction in Myanmar is the plan of urbanization in major cities. As the population is growing much than before, low-cost housing public private partnership plan was started. According to those Strategic Urban Development Plan of Myanmar government, the commitment of construction services become a vital sector in national development. Yangon and Mandalay will emerge as the main commercial cities of Myanmar, and urbanisation will blossom in these two cities due to the current focus of economic and commercial activities. The new capital, Naypyidaw, will continue to develop as an administrative and a logistical centre located in the centre of the country. As stated in the most recent census survey, urbanization increasing with internal migration from countryside to urban areas according for 80% of

Yangon's population growth between 2009 and 2014. Thus, one of the key impacts to Myanmar's construction industry growth will be the increasing urbanisation of major cities.

3.3 Profile of Construction Companies in Dagon Township

Yangon is the most important commercial city with the largest population in all of Myanmar. Since economic liberalization was initiated to attract foreign direct investment, the country needs to be profoundly developed in required infrastructure. But it still faces with inadequate infrastructure to keep pace with other major cities in Asia. For the meantime, construction industry became an essential part of economic growth to facilitate required infrastructure. According to the Myanmar Information Management Unit (MIMU), Yangon is divided into four districts namely West Yangon district, East Yangon district, South Yangon district and North Yangon district. Among these four districts, West Yangon district is a downtown area including thirteen townships.

Construction businesses are important to the development of local economy. The obvious reason is that they are responsible for transforming local areas with new buildings and facilities, and hiring a significant proportion of many nations' workforces. There are 46 construction companies in Dagon township which is situated in West Yangon. This study only focused on the construction service firms located in Dagon township. Among selected 20 construction companies, there are five companies which were established before 2000, three companies which were founded between 2001 and 2010, and twelve companies were started the construction business in Yangon after 2010.

Some construction companies are foreign owned companies that opened a branch in Yangon, some are local well-organized large organizations, some are joint venture with foreign investors and some are family owned construction companies. Almost of the first three types of construction companies has already established systematic organization structure, and set up the distinct duties and responsibilities for their personnel. But, in family owned construction, owners were mainly responsible for all decision making in both operation and financial matters.

The projects that have been implemented by those construction companies can be distinguished into four main groups such as residential construction, institutional and commercial construction, specialized industrial construction, and infrastructure and heavy

construction. Residential construction consists of single-family and multi-family dwellings such as duplex, apartments and condominiums. The school buildings, stadiums, retail stores, shopping centres, skyscrapers, medical facilities, laboratories, government and civic buildings includes in the type of institutional and commercial construction. Building structure with a high degree specialization and technologies such as power generation, oil refineries, steel mills and so on are specialized industrial construction. Building roads, railways, highways, tunnels, transit systems, bridges and overpasses, pipelines and drainage systems are type of infrastructure and heavy construction. In addition, some construction service companies only deliver design and decoration based on the needs and wants of customers, and some provide the installation of utilities such as electricity and water and sewer, as well as paving around the structure. As general classification, amongst construction companies in Dagon township, twenty-one construction companies mainly provide infrastructure building, thirteen companies mostly serve for residential and non-residential building and six companies specially serve for design and interior decoration, three companies supply construction material and serve installation service. The rest three construction companies named Htoo construction, Max Myanmar construction and Capital construction are the local well-known larges corporation which have delivered in most types of residential, commercial, industrial and infrastructure.

Most construction companies have served two or more type of construction services, for instance architecture design and decoration, constructing residential and infrastructure, supply of required construction materials and consulting construction management services. Some large organization offer one stop service to convenience on the customers' requirements. The projects of construction companies can be either private-owned project or state-owned project. The distinction is made on the basis of ownership during the construction period. To get the government owned projects, construction companies need to win the tender issued by the government. Winning the tender more and more means to more jobs, more money and bigger business.

The main goals of those construction companies are to become the leading service provider in business area, to build a good reputation, and maintain long-lasting relationship with its client's satisfaction. They also aim to create a comfortable environment in response to society needs, to develop unique technologies, to build an excellent company and to attain the trust of its customers as well as society.

CHAPTER IV

THE EFFECTS OF INTERNAL CONTROL SYSTEM ON PERFORMANCE OF CONSTRUCTION COMPANIES

This chapter comprise five sections. The first section describes the research design and the second section is the profile of respondents who are departmental head of construction companies. Then, the third section is the analysis of the extent of the internal control practices in selected construction companies. The fourth section illustrates the relationship between internal control system and non-financial and financial performance and the last section states that the effects of internal control system on performance of construction companies.

4.1 Research Design

This study focuses on the internal control system effect on performance of construction companies in Yangon. This study is a case study on Dagon Township and selected a sample 20 construction service firms from a target population of 46 firms in Dagon Township represented a sample of 43% of the target population with simple random sampling method. In this study, 79 departmental heads of selected construction companies responded the structured questionnaires.

This study involves five main independent variables: control environment, risk assessment, control activities, information and communication, monitoring. The performance of construction companies was assessed as two parts comprising non-financial performance and financial performance as dependent variables. The questionnaires survey consists of three parts which contains 42 questions. The first part includes the questions on the background information of the respondents. The second part consists of questions to measure independent variables that are components of internal control system. The third part consists of questions to measure the dependent variables namely non-financial performance and financial performance. In this study, a 5-point Likert scale ranging from 1 (Strongly Disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), 5 (Strongly Agree) is used to find out this study. Data analysis was done by using Statistical Package for Social Sciences (SPSS Version 22.0) program.

4.2   Profile of Respondents

This section presents the personal profile of respondents which are gender, level of education, age group, job position and year of experience in current company. These are presented and analyzed below.

4.2.1   Gender

In this study, gender can be classified into two group, male and female. Table 4.1 describes the gender of the 79 respondents.

Table (4.1) Number of Respondents by Gender

Gender	Number of Respondents	Percent
Male	42	53
Female	37	47
Total	**79**	**100**

Source: Survey data, 2018

As shown in Table (4.1), 53% representing 42 respondents are Males whilst 47% representing 37 respondents are females. Thus, it can be noted that there are no significantly difference between number of male and female respondents.

4.2.2   Age of the Respondents

In this study, age is divided into five groups, consist of below 25 years, 25-35 years, 36-45 years, 46-55 years and above 56 years.

Table (4.2) Number of Respondents by Age

Age	Number of Respondents	Percent
25-35 years	18	23
36-45 years	35	44
46-55 years	24	30
56 years and Above	2	3
Total	**79**	**100**

Source: Survey data, 2018

As shown in Table (4.2), 35 respondents in the 36 to 45 age of the category represent 44% which is the largest group of all. 18 respondents were 25-35 years representing 23% and 24 respondents were 46-55 years representing 30%. The age of the category of 56 years and above is only 2 respondents. So, based on the sample data, it can say that the age of the majority respondents are 36-45 years.

4.2.3 Level of Education

The educational background of the respondents is classified into three group, Degree Level, Master Level, and Certified Professional Level.

Table (4.3) Number of Respondents by Educational Background

Education	Number of Respondents	Percent
Degree	22	28
Master	39	49
Certified Professional	18	23
Total	**79**	**100**

Source: Survey data, 2018

Table (4.3) shows 39 respondents are Master's Degree holders which is the largest segment of the respondents at 49%. 22 respondents representing 28% possess Bachelor's Degree and 18 respondents representing 23% are Certified Professional.

4.2.4 Job Position

The departmental head especially directors, general manager, finance and accounts head, store and logistics manager were requested to support this study.

Table (4.4) Number of Respondents by Job Position

Job Position	Number of respondents	Percent
Director	15	19
General Manager	12	15
Finance and Account Head	19	24
Engineering	19	24
Store and Logistic Manager	14	18
Total	**79**	**100**

Source: Survey data, 2018

From Table (4.4), nineteen respondents each are head of Finance and Accounts department and Engineering department at 24%. Fifteen (15) and fourteen (14) respondents are director and store and logistic manager at 19% and 18% respectively. Twelve (12) respondents are general manager at 15%.

4.2.5 Experience with Current construction Service Firm

The number of years that the respondents have worked with current construction company are presented in Table 4.5.

Table (4.5) Number of Respondents by Experience in Current Company

Experience Year	Number of Respondents	Percent
Below 1 year	1	1
1-3 years	15	19
4-6 years	33	42
7-10 years	24	30
10 years and Above	6	8
Total	**79**	**100**

Source: Survey data, 2018

With regarding to the experience in current company, Table (4.5) shows that the largest segment, 33 respondents at 42%, have worked for 4-6 years. The second largest segment, 24 respondents at 30%, have worked for 7-10 years. On the other hand, 15 respondents at 19% and 6 respondents at 8% have worked for 1-3 years and 10 years and above respectively. Only one respondent at 1% has worked for below one year.

4.3 Internal Control Practices of Construction Companies

In this study, the respondents were requested to examine the extent of internal control practices in terms of control environment, risk assessment, control activities, information and communication, and monitoring. The data collected were summarized into strongly disagree, disagree, neutral, agree, and strongly agree based on a five-point Likert scale. Thus, each factor has been described in term of the mean value and the standard deviation of each statement. It can be assumed that construction companies will strongly practice control factors within their organization if the mean values indicate

above 3 while the companies will weakly practice the factors if the mean value indicate less than 3.

4.3.1 Control Environment

This variable was to investigate the extent of the existence of internal control environment within the organization. The following Table (4.6) describe the mean value and standard deviation for each statement concerning control environment.

Table (4.6) Control Environment

No	Statement	Mean	Standard Deviation
1	The BOD and management at all levels of your company demonstrate a code of conduct and/or ethics policy through their directives.	3.92	0.694
2	The departmental structure in the company is clearly defined.	4.39	0.629
3	The responsibility and chart of authority in the company is distinctly identified.	4.05	0.749
4	The important expectations or policies have been formalized and communicated to all personnel.	3.10	0.709
5	The company has established performance measures and goals to reviewed periodically in relation to responsibility, accountability and ability of employee.	4.01	0.809
	Overall Mean Value	**3.90**	**0.505**

Source: Survey data, 2018

Table (4.6) reports that the extent of the practices of control environment in construction companies. From the above finding, most of the construction companies had a clearly defined departmental structure (mean value=4.39), the responsibility and chart of authority are distinctly identified in those companies (mean value=4.05), and performance measures and goals were also established to review periodically (mean value=4.01). The BOD and management committee of that companies set up a code of conduct and/or ethics policy through their directives as well (mean value=3.92). From the above finding, it can be seen clearly that most of the construction service firms are

operating within the internal control environment as the overall mean value for control environment is 3.90.

4.3.2 Risk Assessment

This variable was to examine the extent of the risk assessment of internal control practices in construction companies. The following Table (4.7) describes the mean value and standard deviation for each statement concerning risk assessment.

Table (4.7) Risk Assessment

No	Statement	Mean	Standard Deviation
1	The documented objectives for all key activities of the organization have been established.	3.38	0.647
2	Potential problems and loss within each department are identified and assessed regularly.	2.65	0.621
3	The targets and objectives for all departments have been modified according to potential risk.	3.39	0.668
4	The company considers potential impact of new projects.	4.10	0.691
5	The company forecast the trends of changing in country's regulation and economic condition.	4.00	0.620
	Overall Mean Value	**3.50**	**0.480**

Source: Survey data, 2018

The findings showed that most of the construction companies consider potential impact of new projects (mean value=4.10), and predict the potential trends of changing in country's regulation and economic condition (mean value=4.00). Also, the documented objectives for all key activities of the business were created (mean value=3.38), and the targets and objectives of all departments were modified in keeping with potential risk (mean value=3.39). However, it can say that they are weak in regular identifying and assessing potential problems and loss within each department (mean value=2.65). Since the overall mean value of risk assessment is 3.50, it can be concluded that most construction companies observed and carried out risk assessment procedure of internal control system.

4.3.3 Control Activities

This variable was to examine the extent of the control activities operating within the organization. The following Table (4.8) expresses the mean value and standard deviation for each statement relating to the control activities.

Table (4.8) Control Activities

No	Statement	Mean	Standard Deviation
1	The quality controls are strongly conducted.	4.18	0.813
2	The documentation flow is adequately identified in each department and adhere accordingly.	4.33	0.674
3	Staff are trained to implement the operation and financial management system.	2.59	0.610
4	The checking process of inventory record accuracy is examined regularly.	4.47	0.551
5	The company has procurement policy and procedures to ensure the best choice in purchasing assets or materials without conflict of interest.	2.89	0.506
6	The company has clear separation of roles and duties.	3.71	0.602
7	Cash is periodically counted on a surprise basis by an independent employee then documented.	4.80	0.404
	Overall Mean Value	**3.85**	**0.283**

Source: Survey data, 2018

According to Table (4.8), the findings revealed that most construction companies have cash control as the mean value in the statement of cash is periodically counted on a surprise basis by an independent employee then documented is 4.80. They also conducted inventory control in the way of examining the process of inventory record accuracy (mean value=4.47). The results also showed that the documentation flow was adequately identified in each department and adhere accordingly (mean value=4.33), the quality controls were strongly carried out (mean value=4.18), and they had clear separation of roles and duties (mean value=3.71). From the above finding, it can be presumed that firms are not strong in watching the issue of conflict of interest in procurement policy

(mean value=2.89), and weak in providing employee training to implement the operation and financial management system (mean value=2.59). However, the overall mean value of control activities is 3.85, it can be concluded that construction companies gave attention and carried out control activities of internal control system.

4.3.4 Information and Communication

This variable was to scan the extent of the flow of information and communication in internal control system.

Table (4.9) Information and Communication

No	Statement	Mean	Standard Deviation
1	All information from project managers support very well to management decisions.	3.38	0.837
2	All employees understand the concept and importance of internal controls including the division of responsibility.	3.08	0.813
3	The company has processes in place to communicate relevant and timely information to external parties.	3.73	0.763
4	There is a process to quickly disseminate critical information throughout the company when necessary.	2.80	0.648
5	Client complaints are taken seriously, investigated, and acted upon.	4.05	0.714
	Overall Mean Value	**3.41**	**0.520**

Source: Survey data, 2018

Table (4.9) reports the mean value of each statement relating to information and communication flow in construction companies. The findings showed that most construction companies cared about customer complaints as mean value in the statement of client complaints are taken seriously, investigated, and acted upon is 4.05. The findings revealed that most construction service firms had a course of action to communicate relevant and timely information to external parties (mean value=3.73). The result of the study also indicated that there was a weak in the process to quickly disseminate critical information throughout the company when necessary (mean value=2.80). From the above

finding, the overall mean value is 3.41 so that it can be supposed most construction firms implemented the flow of information and communication provided the organization.

4.3.5 Monitoring

This variable was to observe the extent of monitoring component of construction firm. Table (4.10) describe the mean value and standard deviation for each statement of monitoring activities.

Table (4.10) Monitoring

No	Statement	Mean	Standard Deviation
1	Internal reviews of implementation of internal controls in units are conducted periodically.	3.85	0.735
2	There are independent process checks and evaluations of controls activities on ongoing basis.	4.23	0.598
3	Adequate and timely actions are taken to correct deficiencies reported by external auditor report.	4.52	0.574
4	The company's management routinely evaluate the overall effectiveness of all internal control practices.	2.89	0.716
5	Each department has budget reviews where actual expenditure is compared with budgeted expenditure with explanations for the variances.	4.48	0.596
	Overall Mean Value	**3.99**	**0.403**

Source: Survey data, 2018

According to Table (4.10), the findings revealed that most construction companies performed adequate and timely actions to correct deficiencies reported by external auditor report (mean=4.52), they conducted budget review by comparing actual figure with budget figure for each department (mean value=4.48), they had independent process checks and evaluations of controls activities on ongoing basis (mean value=4.23), and internal reviews of implementation of internal controls in units are conducted periodically (mean value=3.85). From the above finding, it can be presumed that there was a weak in regular evaluating the overall effectiveness of all internal control practices (mean value=2.89). Since the overall mean value of monitoring component is 3.99, it can be

concluded that construction companies have a good monitoring scheme in their internal control practices.

4.4   Performance of Construction Companies

This section presents the performance of construction companies that are determined by non-financial performance and financial performance. In this study, both of these financial and non-financial performance are reviewed by using five-point Likert scale (1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5 = strongly agree).

4.4.1   Non-financial Performance

Table (4.11) expresses the mean value and standard deviation of non-financial performance of construction companies.

Table (4.11) Non-financial Performance of Construction Companies

No	Statement	Mean	Standard Deviation
1	The company's control system aids to reduce defects, damage and asset loss.	4.22	0.613
2	The company's control system helps to reduce occurrence of frauds and collusion in the company.	4.44	0.549
3	The company's control system reduces unnecessary duplicated work and enhance employees' job satisfaction.	3.53	0.814
4	The company's control system supports projects to accomplish timely.	3.84	0.786
5	The company's control system props up service quality in order to meet client's expectation.	3.89	0.660
Overall Mean Value		**3.98**	**0.431**

Source: Survey data, 2018

As per Table (4.11), by comparing the mean value of nonfinancial performance of construction companies, the study found that the mean value of all of the above five statements are greater than 3.5 that means internal control practices can encourage to be better non-financial performance. The result of the study showed that the internal control system helps the construction companies to reduce occurrence of frauds and collusion

(mean value=4.44), aided to reduce defects, damage and asset loss (mean value=4.22), improve service quality in order to catch client's satisfaction (mean value=3.89), assisted projects to accomplish timely (mean value=3.84), and reduces unnecessary duplicated work (mean value=3.53). The overall mean value is 3.98 nearly 4 that indicates the favorable non-financial performance.

4.4.2   Financial Performance

Table (4.12) expresses the mean value and standard deviation of non-financial performance of construction companies.

Table (4.12) Financial Performance of Construction Companies

No	Statement	Mean	Standard Deviation
1	The company's control system has brought to favorable liquidity status.	3.52	0.695
2	The company's control system helps to minimize unnecessary costs (e.g. over purchase of materials, misuse of assets).	4.01	0.375
3	The company benefits positive profit growth from its internal control system.	3.61	0.587
4	The company's control system leads to closeness to budget.	4.27	0.598
5	The company's control system ensures the accuracy and reliability of financial records.	4.34	0.503
	Overall Mean Value	**3.95**	**0.398**

Source: Survey data, 2018

According to Table (4.12), the result of the study showed that the internal control system helps the construction companies to ensures the accuracy and reliability of financial records (mean value=4.34), lead to closeness to targeted budget (mean value=4.27), to minimize unnecessary costs (mean value=4.01), benefit to positive profit growth (mean value=3.61), and support to be favorable liquidity status (mean value=3.52). Thus, it can be supposed that internal control system makes better in the improvement of cost efficiency and reliability of financial statements. From the above

finding, the study discovered that the overall mean value is 3.95 nearly 4. That means a positive impact on financial performance was resulted.

4.5 Relationship between Internal Control System and Performance

This section indicates the relationship between components of internal control system and performance of construction companies. In this expression, independent variable are components of internal control system and dependent variable is performance of construction companies. This study evaluated the independent variables and dependent variables by using questionnaire based on Likert scale. Thus, Pearson's correlation is suitable to use for analyzing those relationship.

Table (4.13)   Relationship of Internal Control Practices to Performance

	Non-financial performance	Financial Performance	Control Environment	Risk Assessment	Control Activities	Information & Communication	Monitoring
Non-financial Performance	1						
Financial Performance	.451**	1					
Control Environment	.700**	.544**	1				
Risk Assessment	.700**	.402**	.649**	1			
Control Activities	.369**	.475**	.487**	.351**	1		
Information & Communication	.544**	.297**	.642**	.716**	.353**	1	
Monitoring	.679**	.589**	.726**	.590**	.593**	.539**	1

**Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed)

Source: Survey data, 2018

According to Pearson's correlation, Table (4.13) indicates the correlation coefficient for dependent variable (Control Environment, Risk Assessment, Control

Activities, Information & Communication, and Monitoring) and independent variables (non-financial performance and financial performance).

The correlation coefficient of control environment, risk assessment and monitoring with non-financial performance is round about 0.7 so there is a fair and direct relationship between those three variables and non-financial performance at 1% level of significant. The correlation coefficient of control activities with non-financial performance is 0.369 so there is a weak and direct relationship between control activities and non-financial performance at 1% level of significant. And the correlation coefficient of information and communication with non-financial performance is 0.544 so there is a fair and direct relationship between monitoring and non-financial performance at 1% level of significant.

On the other hand, the correlation coefficient of control environment, risk assessment, control activities, and monitoring with financial performance is round about 0.5 so there is a fair and direct relationship between those four variables and financial performance at 1% level of significant. The correlation coefficient of information and communication with financial performance is 0.297 so there is a weak and direct relationship between them at 1% level of significant.

4.6 Effects of Internal Control System on Performance

This study was conducted to examine the effects of internal control system on performance of construction firms. Multiple regression analysis was applied in this study.

Table (4.14)   Effects of Internal Control System on Non-financial Performance

Model		Unstandardized Coefficients		Standardized Coefficient	t	Sig.
		B	Std.Error	Beta		
1	(Constant)	1.061	0.427		2.485	0.015
	Control Environment	0.254	0.1	0.298	2.543	0.013
	Risk Assessment	0.364	0.099	0.406	3.67	0.000
	Control Activities	-0.115	0.135	-0.075	-0.85	0.398
	Information & Communication	-0.065	0.089	-0.079	-0.732	0.467
	Monitoring	0.331	0.123	0.31	2.685	0.009
					Adjusted R^2	0.607
					F Value	25.145

Source: Survey data, 2018.

Based on Multiple regression analysis of Table (4.14), the findings show that the independent variables (Control Environment, Risk Assessment, Control Activities,

Information and Communication, and Monitoring) contributed to 60.7% of the variation in non-financial performance as explained by adjusted R2 of 0.607. The result P value (Sig.) of control environment is 0.013, and it is less than 0.05 (5% level of significant). And the result P value (Sig.) of risk assessment and monitoring are 0.000 and 0.009 which are less than 0.01 (1% level of significant). Thus, it can be concluded that the control environment, risk assessment and monitoring factors have an influence on the non-financial performance of construction companies.

Table (4.15)   Effects of Internal Control System on Financial Performance

Model		Unstandardized Coefficients		Standardized Coefficient	t	Sig.
		B	Std.Error	Beta		
1	(Constant)	1.052	0.499		2.109	0.038
	Control Environment	0.218	0.117	0.276	1.862	0.067
	Risk Assessment	0.091	0.116	0.11	0.785	0.435
	Control Activities	0.253	0.157	0.18	1.606	0.113
	Information & Communication	-0.151	0.104	-0.197	-1.442	0.153
	Monitoring	0.319	0.144	0.323	2.213	0.03
Adjusted R^2						0.372
F Value						10.240

Source: Survey data, 2018.

Based on Multiple regression analysis of Table (4.15), the result of the study shows that the independent variables contributed to 37.2% of the variation in financial performance as explained by adjusted R2 of 0.372. The P value of control environment is 0.067which is less than 0.10 (10% level of significant). And the result P value (Sig.) of monitoring is 0.03 which is less than 0.05 (5% level of significant). Thus, it shows that control environment and monitoring factors have a significant influence on the financial performance of construction companies.

CHAPTER V

CONCLUSION

This chapter includes the summary of findings, suggestions and need for further study. The findings of the study show the effect of internal control system on the performance of construction companies in Yangon. Then, this study presents the suggestions derived from the result of the findings, and states the need for further study.

5.1   Findings

The two main objectives of this study are to identify the practices of internal control system and to observe the effects of internal control system on performance of construction companies. In this study, key findings have been divided into two main thematic areas. These are the extent of internal control practices of construction companies, and the effects of internal control system on its performance. Descriptive research design was adopted and it used a sample of 20 construction companies from a targeted population of 46 construction companies in Dagon township. The total respondents of 79 are the members of management committee or departmental heads. The study used primary data collected from structured questionnaires and those data are analysed by using multiple regression analysis based on descriptive statistics.

This study examined some demographic variables such as gender, age level, level of education, job position and year of experience in current company and those are analysed in terms of absolute value and percentage. From the study findings, most of the respondents are male. In respect of age, most respondents are between 36-45 years, and in regard to their level of education, the largest proportion of respondents are master degree holders. The majority of respondents' position is head of engineering and finance department. On the length of service, most respondents have worked between 4-6 years.

In the next section, the extent of adherence of internal control practices in construction companies are examined. According to the highest mean value of the studied survey result, regarding control environment, most construction companies have distinctly set up the departmental structure, and relating to risk assessment, they are strongly aware of the possible outlook and consequence of new projects and changes of regulation. With respect of their control activities, most of the construction companies

have managed to be proper documentation, precise cash and inventory controls, and care about good quality. And regarding information and communication component, it can be found that they have prioritized to solve customer complaints. Concerning monitoring activities, they have given more attention to clarify in internal and external auditing to diminish losses and frauds. In this study, it can be concluded that internal control system leads to better non-financial performance especially as a way to reduce the occurrence of frauds, collusion, defects, damage and asset loss. Moreover, it also helps to meet the targeted budget of the projects and to report more reliable financial statements than other indicators of financial performance.

The results of correlation coefficient show that there is a positive relationship between internal control system and performance of construction companies in Yangon. The results of the regression model show that three main components named control environment, risk assessment and monitoring have a significant influence on non-financial performance. However, in financial performance, the study indicated that control environment and monitoring components have a significant influence on financial performance.

5.2 Suggestions

Based on the study finding, management of the company should emphasize more in communication of the main objectives and all policies of the organization to all respective personnel because employees need to understand how they commit their efforts and how important their roles and duties for their company's achievement. Moreover, management has to predict and assess regularly not only external risks such as impact of new projects, regulation and economic condition changes, but also internal risks such as employee and material shortage, availability of technology support and financial liquidity. Then, their targets and plans should be reviewed periodically and aligned with the current potential risks.

In addition, management should consider to provide technical training programs to implement the proper and better operation and financial management system. In order to solve conflict of interest that is one of big issues in construction, management should develop a clear policy to deal with situations where a person does not disclose conflicting interests. Also, management should communicate important information that supports the functioning of internal control system to all relevant personnel on time.

Furthermore, management should overview whether the internal controls within the organization are still effective or efficient. Although strong internal control system cannot totally eliminate trouble outcomes of their performance, all of these suggestions should be done under proper supervision to approach the best performance.

5.3   Need for Further Study

The other business industries could be examined respecting the practice of internal control system and its effects as this research studied only construction industry. This study comprises 79 respondents of 20 construction companies in Dagon township. It means this finding could not be generalized to cover the entire construction industry. Thus, the more we extend the sample size, the more representative of the studied purpose. Moreover, further study should be done in relation to causes of internal controls failure or risk management. Since this study only concentrated on top management, future research should focus on all level of organization whose effort contribute to internal control system should be observed.

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QUESTIONNAIRE

I. CHARACTERISTICS OF RESPONDENT

1. Gender
   - □ Male
   - □ Female

2. Age Level
   - □ Below 25
   - □ Age between 25-35
   - □ Age between 36-45
   - □ Age between 46-55
   - □ Age 56 and above

3. Level of Education
   - □ Degree
   - □ Master
   - □ Certified Professional

4. Job position
   - □ Director
   - □ General Manager
   - □ Finance and Accounts Head
   - □ Engineering Head
   - □ Store and Logistic Manager
   - □ Other

5. Year of experience in current company
   - □ Below one year
   - □ 1 - 3years
   - □ 4 - 6years
   - □ 7 - 10 years
   - □ 10years and above

II.　The Extent of the Internal Control system

Please indicate the extent to which you agree or disagree with the following.
1 = strongly disagree, 2 = disagree, 3 = Neutral, 4 = agree, 5 = strongly agree.
Please tick (√) appropriately.

Control Environment	1	2	3	4	5
6.　The BOD and management at all levels of your company demonstrate a code of conduct and/or ethics policy through their directives.					
7.　The departmental structure in the company is clearly defined.					
8.　The responsibility and chart of authority in the company is distinctly identified.					
9.　The important expectations or policies have been formalized and communicated to all personnel.					
10.　The company has established performance measures and goals which are periodically reviewed in relation to responsibility, accountability and ability of employee.					

Risk Assessment	1	2	3	4	5
11.　The documented objectives for all key activities of the organization have been established.					
12.　Potential problems and loss within each department are identified and assessed regularly.					
13.　The targets and objectives for all departments been modified according to potential risk.					
14.　The company considers potential impact of new projects.					
15.　The company forecast the trends of changing in country's regulation and economic condition.					

Control Activities	1	2	3	4	5
16. The quality controls are strongly conducted.					
17. The documentation flow is adequately identified in each department and adhere accordingly.					
18. Staffs are trained to implement the operation and financial management system.					
19. The checking process of inventory record accuracy is examined regularly.					
20. The company has procurement policy and procedures to ensure the best choice in purchasing assets or materials without conflict of interest.					
21. The company has clear separation of roles and duties.					
22. Cash are periodically counted on a surprise basis by an independent employee and documented.					

Information and Communication	1	2	3	4	5
23. All information from project managers support very well to management decisions.					
24. All employees understand the concept and importance of internal controls including the division of responsibility.					
25. The company has processes in place to communicate relevant and timely information to external parties.					
26. There is a process to quickly disseminate critical information throughout the company when necessary.					
27. Client complaints are taken seriously, investigated, and acted upon.					

Monitoring	1	2	3	4	5
28. Internal reviews of implementation of internal controls in units are conducted periodically.					
29. There are independent process checks and evaluations of controls activities on ongoing basis.					
30. Adequate and timely actions are taken to correct deficiencies reported by external auditor report.					
31. The company's management routinely evaluate the overall effectiveness of all internal control practices.					
32. Each department has budget reviews where actual expenditure is compared with budgeted expenditure with explanations for the variances.					

III.   Effect of Internal Control system on Performance of Construction Companies

Please indicate the extent to which you agree or disagree with the following.
1 = strongly disagree, 2 = disagree, 3 = Neutral, 4 = agree, 5 = strongly agree.
Please tick (√) appropriately.

Internal Control System's Effects					
Non-financial Performance	**1**	**2**	**3**	**4**	**5**
33. The company's control system aids to reduce defects, damage and asset loss.					
34. The company's control system helps to reduce occurrence of frauds and collusion in your company.					
35. The company's control system reduce unnecessary duplicated work and enhance employees' job satisfaction.					
36. The company's control system supports projects to accomplish timely.					
37. The company's control system prop up service quality in order to meet client's expectation.					

Financial Performance	**1**	**2**	**3**	**4**	**5**
38. The company's control system has brought to favorable liquidity status.					
39. The company's control system help to minimize unnecessary costs (e.g. over purchase of materials, misuse of assets).					
40. The company benefits positive profit growth from its internal control system.					
41. The company's control system leads to closeness to budget.					
42. The company's control system ensure the accuracy and reliability of financial records.					

List of Construction Service Companies in Dagon Township, Yangon.

Asia Triumph Co., Ltd

Ayeyarwady Resort & Lodges Co., Ltd

Brilliant Group of Companies

Capital Construction Ltd

Central Development Group Co., Ltd

Chiyoda & Public Works Co., Ltd

Colourful Decoration Group

Comet

Daiho Corporation

Decent Dynasty Int'l Co., Ltd

Ever Development Co., Ltd

Fujita Corporation (Daiwa House Group)

Galaco Engineering Co., Ltd

Golden Cougar Co., Ltd

Grand Building Construction Co., Ltd

Hazama Ando Corporation

Hitachi Asia Ltd

Htoo Construction Development Group Co., Ltd

Jade Castle Engineering Group

Maroon Matrix

Max Myanmar Construction Co., Ltd

MKG Myanmar Co., Ltd

Natmauk Construction Co., Ltd

NEGC (National Energy Group Construction Co., Ltd

Nippo Road Alliance Myanmar Ltd

Nishimatsu Construction Co., Ltd (Yangon Branch)

Opal Construction Co., Ltd

Penta-Ocean Construction Co., Ltd

Real Perfect Co., Ltd

Royal Michelia Co., Ltd

Service Int'l Co., Ltd

Shimizu Corporation

Shwe More Group Construction & Industry Co., Ltd

Shwe Myanmar Supply Base Co., Ltd

Southern Infrastructure Co., Ltd

Taihei Dengyo Kaisha Ltd

Taw Win Family Co., Ltd

The Architectural Guild Co. Ltd

The Three Musketeers Co., Ltd

Thuka Yadanar Co., Ltd

Toda Corporation

TOENEC Corporation

United Synergy Engineering Co., Ltd

Wider Rise Construction Co., Ltd

Yangon Engineering Group Co., Ltd

Zay Yar Nann Co., Ltd

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