#### THESIS ABSTRACT

Master of Business Administration Adventist University of Africa

School of Postgraduate Studies

# Title: DETERMINANTS OF THE INTERNAL CONTROL EFFECTIVENESS OF THE IOUC'S SELECTED ENTITIES IN MADAGASCAR

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Internal control must be the everyday life of each entity as it is the process established by the entity's management to prevent and detect frauds, errors and thefts in order for the entity to achieve its established missions and objectives. Having effective internal control is the prime priority of today's entity as it leads to good corporate governance, elimination or diminution of risks and fraudulent acts, growth and development of the entity and achievement of objectives. Unfortunately, some of the Indian Ocean Union Conference of Seventh-day Adventists (IOUC)'s entities can't achieve these goals and objectives because of ineffective internal control in the workplace. Thus, the purpose of this study is to explore the determinants of the internal control effectiveness of four IOUC's selected entities in Madagascar.

For the present research, questionnaire and structured interviews were used to collect data. The target population was 310, and 202 out of 310 shared questionnaires

were collected. Male gender was the most represented and the majority of respondents were from the age group 30-39 years. The 5-9 years category of service was more represented compared to others and many of IOUC's selected entities employees had a bachelor's degree and above.

A pilot study was conducted before the actual one in order to correct possible flaws in the instrument. One month was given to the respondents to complete the questionnaire and to give it back. For the interviews, different methods were used according to the prevailing situation.

With the level of significance at 0.01, the first, third, fourth, fifth and sixth null hypotheses of the present study were rejected while the second null hypothesis was accepted. Thus, just four components of internal control of the four IOUC's selected entities in Madagascar contribute to their internal control effectiveness which was the dependent variable of the study. Accordingly, the determinants of the internal control effectiveness of the four IOUC's selected entities by order of impact are the information and communication system, risk assessment, control activities and monitoring of control.

As the internal control of the four IOUC's selected entities is not effective enough due to the deficiencies in the area of risk assessment and monitoring of control, the major recommendation and implication of the researcher is that internal audit unit should exist within those entities and both management and employees should be totally committed and engaged in the improvement of the deficiencies area of internal control. Adventist University of Africa

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# DETERMINANTS OF THE INTERNAL CONTROL EFFECTIVENESS OF THE IOUC'S SELECTED ENTITIES IN MADAGASCAR

A thesis

presented in partial fulfillment of the requirements for the degree Master of Business Administration

by

Herimamy Rafaliniony

April 2018

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I dedicate this paper especially to my wife, Onintsoa Rafaliniony, and my son, Herintsoa Uriel Rafaliniony, for their love, patience, support and understanding.

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#### LIST OF ABBREVIATIONS

- ANOVA Analysis of Variance
- AUA Adventist University of Africa
- COSO Committee of Sponsoring Organizations of the Treadway Commission
- FMC Fédération Madagascar Centre (Central Malagasy Conference)
- GC General Conference of Seventh-day Adventists
- GCAS General Conference Auditing Service
- IOUC Indian Ocean Union Conference of Seventh-day Adventists
- MBA Master of Business Administration
- MEA Maison d'Edition Adventiste (Adventist Printing House)
- RQ Research Question
- SDA Seventh-day Adventist
- SID Southern Africa Indian Ocean Division of the General Conference of Seventh-day Adventists
- SMA Système Médical Adventiste (Adventist Health System)
- SPSS Statistical Package for the Social Sciences
- UAZ Université Adventiste Zurcher (Zurcher Adventist University)

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#### CHAPTER 1

#### INTRODUCTION

#### **Background of the Study**

It is argued that fraud is involved in some of the biggest entity failures but entity failures are not always a result of fraud (Forensic, 2016). Many fraudulent acts, embezzlements, thefts and errors occurred because of ineffective internal control. Patterson and Smith (2007) suggest that effective internal control makes fraud commitment difficult and makes fraud detection easy. Kennedy (2012) added that through internal control, the entity can prevent frauds by removing opportunities to do them. That is why each entity should have an effective internal control. Ofori (2011) argues that ineffective internal control leads to ineffective programs and also leads to losses. Thus, that explains that the entity's failure is the result of ineffective internal control. Harrison Jr, Horngren, and Thomas (2013) suggest that internal control is the primary means for preventing frauds as well as unintentional financial statement errors. Accordingly, Harrison Jr et al. (2013) added that fraud is an intentional misrepresentation of facts. Frauds impact financial statements by misappropriating the assets and fraudulent financial reporting. Frauds exist because of the existence of the fraud triangle which includes; the motive to do them, the opportunity to do them and the rationalization to do them. That is why entities should detect and prevent frauds.

Hiscox Inc (2016) reported that the employees who have the most access to the cash and who have control over the cash take the most. About 82% of embezzlement cases is from small and medium entities which have less than 150

workers and the average losses from the embezzlement act is \$807,443 (Hiscox Inc, 2016). Embezzlement varies in age, profession and motivation and is often done by regular employees who are smart, well-liked, and those who are not expected to steal (Hiscox Inc, 2016). That report shows how it is important to have effective internal control because anyone can steal when the opportunity is given to them to do so. Each manager should be strict and more serious about the effectiveness of the internal control in order to help the entity to avoid such kind of thefts by detecting and preventing them.

Many organizations who failed to set up effective internal control experienced frauds and have faced challenges and problems see Enron, Bernie Madoff, WorldCom, Tyco International Ltd., and Adelphia Communications Corporation (Kennedy, 2012). Ineffective internal control may cause a company's bankruptcy. Frauds and errors can appear at any time and committed by anyone and that is why it is very important to prevent, detect and correct them in the right time through strong and effective internal control. Thus, it becomes the prime priority of management to have effective internal control and to evaluate it on an ongoing basis.

Internal control is not just a tool to detect frauds and errors but as Harrison Jr et al. (2013) argue it supports also the entity to achieve five objectives which are to safeguard assets, encourage employees to follow company's policy, promote operational efficiency, ensure accurate, reliable accounting records and comply with legal requirements. Effective internal control gives assurance to any entity to be effective and efficient in its operations. Lakis and Giriūnas (2012) added also that effective internal control creates competitive advantage to one organization over its competitors. Accordingly, there are many advantages of having effective internal control. Thus, Messier, Glover and Prawitt (2008) argue that the entity's management

is responsible of maintaining the controls over the entity's operations in order to achieve the entity's objectives. If the management fails to set up and to follow up correctly the internal control process, the entity as a whole will collapse. In that regard, Garrison, Noreen and Brewer (2015) argue that internal control provides assurance of the reliability of the financial reports. That is, effective internal control gives assurance to management that its decision is based on dependable information. Henning (2010) contends that the lack of effective internal control has a negative impact on the entity's financial condition and its ability to carry out the business plan. Therefore, ineffective internal control is a risk for any entity. Wang and Ruan (2016) added that internal control affects positively the entity's performance by optimizing the entity's resources and reducing the entity's operating and management costs. Thereby, it enhances the entity's operating profit and reduces risks. Therefore, effective internal control is a key element of the success of any entity but not just a tool to detect and prevent frauds and errors.

The Seventh-day Adventist (SDA) Church is a nonprofit organization which depends on donors. The SDA Church has many entities such as the General conference, the Divisions, the Unions, the Conferences, and many institutions. These entities are subject to the internal control effectiveness. Petrovits, Shakespeare and Shih (2009) argue that ineffective internal control may reduce the donors' contributions. Having ineffective internal control is the threat of any SDA entity and it is totally true because frauds and embezzlements are the results of ineffective internal control and donors do not want their money to be lost. Unfortunately, some of the Indian Ocean Union Conference of Seventh-day Adventists (IOUC)'s entities have recently experienced embezzlements and frauds. These entities suffered in the realization of their projects because of lack of liquidity. Therefore, there are no

developments and their financial performance went down. It is through strong and effective internal control alone that those entities can deal with those problems and achieve their established objectives (Lakis and Giriūnas, 2012). Lakis and Giriūnas (2012) suggest that effective internal control only enables an entity to objectively assess the potential development and tendencies of the entity performance.

Accordingly, it can be argued that internal control plays a major role in the achievement of any entity's objectives as well as prevention and detection of frauds and errors. Thus, the prime objective of this study was to investigate the determinants of internal control effectiveness of four IOUC's selected entities in Madagascar.

#### **Statement of the Problem**

IOUC requires that there is reliability of the financial reporting and the effectiveness and efficiency of the operations of its entities in Madagascar. IOUC wants also entities to comply with the local applicable laws and regulations. In addition, IOUC requires them to prevent, detect, and eliminate frauds and errors to have accurate and timely financial statements on which each entity's management can depend in its decision-making process for the success of the entity. Accordingly, having effective internal control leads to an accurate financial reporting, efficiency of operations and compliance with the law which can enable those entities achieve an unqualified opinion from the auditors. Unfortunately, some of the institutions can't achieve those goals and objectives because of ineffective internal control in the workplace. That is, there is internal control but it is not effective as it should be. Thus, the purpose of this study was to explore the determinants of the internal control effectiveness of the IOUC's selected entities in Madagascar.

#### **Research Questions**

To achieve the main objective of the study which was exploring the determinants of the internal control effectiveness of the IOUC's entities, the following research questions (RQs) were posed:

- Does the control environment of the four IOUC's selected entities in Madagascar have a relationship of their risk assessment, information and communication system, control activities and monitoring of controls?
- Does the control environment of the four IOUC's selected entities in Madagascar have an effect on their internal control effectiveness?
- 3. Does the risk assessment of the four IOUC's selected entities in Madagascar have an effect on their internal control effectiveness?
- 4. Do the information and communication system of the four IOUC's selected entities in Madagascar have an effect on their internal control effectiveness?
- 5. Do the control activities of the four IOUC's selected entities in Madagascar have an effect on their internal control effectiveness?
- 6. Does the monitoring of controls of the four IOUC's selected entities in Madagascar have an effect on their internal control effectiveness?

#### **Null Hypotheses**

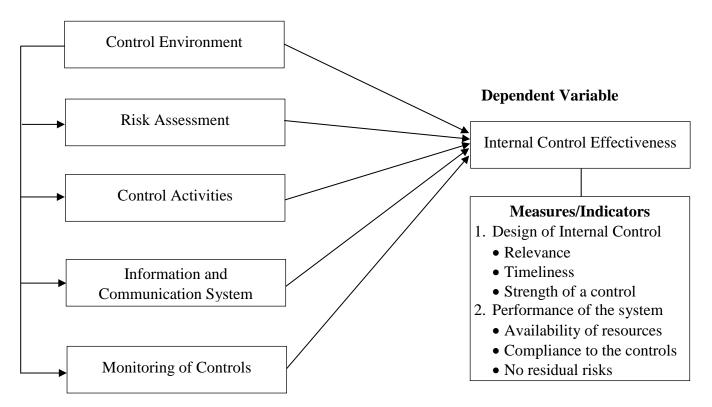
In this study, six null hypotheses related to the RQs were tested and are stated below.

- 1.  $H_{0_1}$ : Control environment has no relationship of the four other components of internal control system of the four IOUC's selected entities in Madagascar.
- 2.  $H_{0_2}$ : Control environment has no effect on the internal control effectiveness of the four IOUC's selected entities in Madagascar.

- 3.  $H_{0_3}$ : Risk assessment has no effect on the internal control effectiveness of the four IOUC's selected entities in Madagascar.
- 4.  $H_{0_4}$ : Information and communication system have no effect on the internal control effectiveness of the four IOUC's selected entities in Madagascar.
- 5.  $H_{0_5}$ : Control activities have no effect on the internal control effectiveness of the four IOUC's selected entities in Madagascar.
- 6.  $H_{0_6}$ : Monitoring of controls has no effect on the internal control effectiveness of the four IOUC's selected entities in Madagascar.

#### **Conceptual Framework**

The conceptual framework of this study is given in Figure 1 below.



#### **Independent Variables**

Figure 1. Conceptual Framework (Source: Researcher, 2017)

In this study, the dependent variable is the internal control effectiveness which was the variable of primary interest. Internal control is the process established and used to prevent and detect frauds and errors in order for the entity to achieve its objectives. The internal control is effective when it is well designed which means it is relevant, timely and strong. Second, internal control functions effectively when the resources needed to operate the system are available, it is adequate and all residual risks are addressed. Those are indicators of effective internal control but the effectiveness of the internal control depends on the five independent variables which are the control environment, risk assessment, information and communication system, control activities and monitoring of controls.

The relationship between those five components of internal control and the internal control effectiveness is very significant. Control environment is the foundation of the internal control system. Control environment includes integrity and ethical value, commitment to competence, board of directors or audit committee, management philosophy and operating style, organizational structure, assignment of authority and responsibility and human resource policies and procedures. Moreover, the effectiveness of the control environment which influences the effectiveness of the internal control depends on the well-functioning of those elements.

The control environment also influences the other four components of internal control. Hence, effective control environment results in better assessment of risks, better flow of information, high control activities as well as keen monitoring of controls. Risk assessment is the process of identifying and responding to the possible risk. The more the risks are assessed effectively the more the internal control is effective. Information and communication system is the process of giving and getting relevant and timely information. All the policies, instructions, activities, objectives,

strategies and others should be communicated effectively to have effective internal control. Control activities are the policies and procedures used to support the management to address the risk by reviewing the company's performance, controlling the information processing, doing a physical control and segregating duties. When the control activities are effective, that leads to an effective internal control. There should be also monitoring of controls to check if the internal control is operating correctly as planned for adjustment purpose if necessary. Thus, effective monitoring of controls leads to effective internal control.

#### Significance of the Study

This study was significant for many reasons. First, it will help the IOUC's management to evaluate the effectiveness of the internal control of IOUC's entities. Second, it will enable the IOUC's entities to recognize their strengths and weaknesses regarding the internal control system. Knowing their weaknesses, they should correct and improve them to have effective internal control. Third, it will help them to redefine policies which will enable them to be more effective in the achievement of their objectives, that is, the purpose of the internal control. And lastly, it will enable the researcher to explore more knowledge about the internal control and to understand the effectiveness of the IOUC's selected entities' internal control.

#### Scope and Limitations of the Study

The study focused on exploring the determinants of the internal control effectiveness of four IOUC's selected entities composed of the organizational unit and institutions in Madagascar. The study was limited to one dependent variable namely internal control effectiveness and five independent variables which are the components of internal control— control environment, risk assessment, control

activities, information and communication system and monitoring of controls. Since the study was limited to IOUC, the generalizability of the outcome of the study may be hindered.

#### **Operational Definitions of Terms**

<u>Internal control</u>: Internal control is the process established by the entity's management to prevent and detect frauds, errors and thefts in order for the entity to achieve its established missions and objectives.

<u>Control environment:</u> Control environment is all standards, procedures, policies, rules and structures that are put in place to assure the well-functioning of the entity's internal control system.

<u>Risk assessment:</u> Risk assessment is the process for identifying, analyzing, and correcting all risks which threaten entity to achieve its objectives.

<u>Information and communication system:</u> Information and communication system is the process used to make possible the flow of relevant and timely information within a workplace.

<u>Control activities</u>: Control activities are all actions operated to minimize risks and negative events within the entity.

<u>Monitoring of controls:</u> Monitoring of controls is the process used to evaluate the performance of the entity's employee and the internal control system over time. <u>Effective internal control:</u> Effective internal control is a well-designed and well-performed control which assure the entity's objectives achievement.

#### CHAPTER 2

#### **REVIEW OF LITERATURE**

#### Meaning of Internal Control

Internal control has many definitions which all of them turn around the same objectives. In this section, various definitions are presented in order to provide a good understanding of internal control.

The first definition of internal control was presented in 1949 by the American Institute of Certificated Accountants (Lakis and Giriūnas, 2012) as a plan and other coordinated measures settled by the management to ensure the established management politics, the safety of the entity's assets, and the covertness and reliability of data and to increase the entity's effectiveness. Then Lemi (2015) reported the definition of internal control given by the United Kingdom Auditing Practice Committee on 1979 as the whole system of financial and operational control used to carry on the business of any entity to safeguard asset, to ensure the completeness and the accuracy of records, to detect errors and fraud and to ensure a timely financial reporting. To continue, Robertson and Davis in 1988 defined internal control from the accounting perspective that it is a set of both computerized and manual procedure put in place to detect errors and irregularities which may enter the accounting system and affect the financial statements (Lemi, 2015). In addition, Saleemi (1997) defined internal control as the whole system of controls used by the management to conduct effectively the entity's business, to safeguard the entity's assets and to ensure the completeness and accuracy of records.

From the first definition until here, the meaning of internal control has improved even though it turns around the same objectives as for the management or accounting perspective. For instance, Frimpong et al. (2012) mentioned the definition of internal control given by the Financial Management Journal in 2005 as all processes used to prevent and detect errors, fraud, waste, abuse, and mismanagement in order for the entity to achieve missions, goals and objectives and to safeguard assets. More so, from the Committee of Sponsoring Organizations of the Treadway Commission (COSO), Whittington and Pany (2008) defined internal control as a process, effected by the entity's board of directors, management, and other personnel, designed to provide reasonable assurance of the reliability of financial reporting, the effectiveness and efficiency of operations, and the compliance with applicable laws and regulations.

Edmonds, Edmonds, McNair, Olds and Milam (2008) defined also internal control as the policies and procedures implemented to reduce opportunities for fraud and to assure the accomplishment of the company's objectives. Other authors (Libby, Libby, Phillips, & Whitecotton, 2009) defined also internal control as the methods an organization uses to protect against the theft of assets, enhance the reliability of accounting information, promote efficient and effective operations, and ensure compliance with applicable laws, regulations, and codes of ethical conduct.

To continue, Akani & Akaninyene (2015) defined internal control according to Kudinz (2009) as all forms of control techniques or measures established by management to ensure an efficient and effective performance of an organization. Akani and Akaninyene (2015) gave also the definition of internal control given by Aguolu in 2009 as the whole system of financial and other controls set up by the

management in order for the entity to ensure the accuracy and reliability of its records, to run its business in a correct way and to safeguard its assets.

According to these definitions, the objectives of the internal control are to prevent or to detect ahead of time frauds or errors and to assure the well-functioning of the entity's business. The General Conference of Seventh-day Adventists (GC) (2011) gave also a definition of internal control as to all processes designed and implemented by the entity's management and the governing committee to provide reasonable assurance that the entity's objectives are achieved. Then Harrison Jr, Horngren, Thomas and Suwardy (2014) defined internal control as a plan of an entity and a system of procedures established by the management and the entity board of directors which are designed to safeguard assets, encourage employees to follow the policy, promote the efficiency of operations, ensure the accuracy and reliability of accounting records, and comply with the law.

Garrison et al. (2015) defined also internal control as a process designed to provide reasonable assurance that the company's objectives are being achieved. To continue, Zakaria, Nawawi and Salin (2016) described internal control as rules and procedures settled to provide reasonable assurance of the achievement of the entity' specific objectives. Accordingly, the main purpose of internal control is to support the entity to manage their risk in order to achieve the established objectives and to maintain the performance of the entity (Zakaria et al., 2016).

To summarize what has been argued, some authors used process and some used methods to describe internal control. Accordingly, no matter what term is used to describe it, internal control is the key tool for any entity to detect frauds and errors and to provide assurance for the achievement of the entity's objectives. Some of them recognized that internal control is settled by the entity's management.

Thus, the researcher defines internal control according the IOUC's context as all the processes established by the entity's management to prevent and detect frauds, errors and thefts in order for the entity to achieve the established missions and objectives.

#### **Theoretical Framework**

The guiding framework for this study is largely linked with the theories of agency and stewardship. Agency theory is defined as the relationship between principal and agent where the agent is employed by the principal to perform tasks on behalf and for the benefit of the principal. Accordingly, Namazi (2013) argued that agency theory relates to situations in which the agent is engaged by the principal to act on his or her behalf. Problem arises when the agent does not work for the interest of the principal but for his or her self-interest. In other words, as cited by Tanui, Omare and Bitange (2016), self-interested agents might act opportunistically and take decisions to maximize their welfare rather than maximizing the principal value. That situation creates a conflict of interest between them. Accordingly, one way to ensure that agents are put to check is to ensure effective internal controls in order to protect the interest.

In support, Ndiwa and Kwasira (2014) added that to strengthen the agency relationship, the principal should employ experts to monitor the agent through internal controls. There are agency costs also when there is a problem or conflict between principal and agent, but, internal control system reduces that agency costs (Magu & Kibati, 2016). Thus, the control environment is key to minimizing agency problems in organizations.

Stewardship theory on the other hand implies that agents are not motivated by self-interests, rather, they perceive themselves as stewards who seek the interest of the

principal / stakeholders. In other words, agency theory assumes that the agent behaves opportunistically and reduces the wealth of the principal (Tanui et al., 2016), but stewardship theory assumes that the interests of both the principal and the steward are aligned (Badara, 2017) which drive the action of the steward to entities' success. Stewardship theory is very relevant in the context of the SDA Church's entities. The SDA church believes that God is the owner of all things and He has entrusted people (stewards) with the responsibility to take care of His resources. Therefore, managers see their role as responsibility to serve as stewards. Accordingly, Badara (2017) argues that the steward is trustworthy and acts appropriately for the entities' interests. That situation minimizes the costs aimed at monitoring and controlling.

Both agency and stewardship theories are very important and relevant in this study. Thus, while agency theory views managers as self- seeking, stewardship theory views managers as partners with owners/scholars in achieving organizational goals. In both ways, effective internal controls serve as important mechanism to achieve organizational goals.

#### Who is Responsible for Internal Control?

The main objective of an entity is to be successful financially and administratively. To reach that objective, the entity must have controls over all operations by following all procedures and policies the management and the governing committee set to run the business. According to the definitions of internal control given by different authors, it is the responsibility of the entity's management to set up the internal control system and to ensure its effectiveness. Garrison et al. (2015) accordingly argued that internal control is put in place by the management.

Patterson and Smith (2007) argued also that the system of internal control is designed and implemented by the management. That is, each company's management

must ensure that internal control is effective in the workplace. The Institute of Company Secretaries of India (2014) noticed that the management is responsible of maintaining internal control depending on the size and the nature of business of the entity. Accordingly, the GC (2011) proposes that the responsible for designing and operating a system of internal control that ensures the orderly and efficient conduct of the entity's activities is the management.

Thus, the entity's management can't deny its responsibility regarding the internal control system. If the quality of the entity's management is good, the internal control system in the workplace should be good too as the management is responsible of setting it up.

#### **Role and Forms of Internal Control**

Phillips, Libby and Libby (2008) noticed that after the scandal of Enron and other companies in the early 2000s, internal control has become the most important thing for any entity of whatever size. Zakaria et al. (2016) reported what Baldock argued on the same year that ineffective internal control creates opportunities for employees, regardless of age, culture or geographic location to commit fraud in the organization. In other words, (Patterson and Smith, 2007) the increase of internal control strength diminishes the net benefit of perpetrating fraud. Related to the definitions given and what those authors said, the role of internal control is to eliminate opportunities for frauds to appear.

Akani and Akaninyene (2015) argued that internal control gives assurance to management that financial data provided to them in the decision-making process is dependable. That is, an organization which has effective internal control can make an effective decision. Thus, the role of internal control is to ensure also that the entity's management takes the right decision on the right time.

Internal control has an important role also in the financial markets as it improves economic efficiency and enhances investor confidence (Wah, 2011).

Internal control can be classified into two forms of control which are the financial control and the administrative control. The role of internal control can be attributed according to the forms of control. Generally, financial control deals with all financial records and reports and administrative control deals with the efficiency of all operations.

#### **Financial Control**

Lemi (2015) argued that financial control is the control used to protect assets against inappropriate disbursement and ensure the accuracy and reliability of financial records while administrative control is used to ensure the achievement of organizational objectives and the efficiency and effectiveness of operational procedures. In addition, Garrison et al., (2015) contended that the role of financial control is to provide the reliability of financial reporting. It is because financial control identifies and prevents frauds and errors.

Akani and Akaninyene (2015) added that financial control includes internal checks and internal audit and both of them provide assurance regarding the reliance on the accounting records and financial statements. Accordingly, Saleemi (1997) indicated that internal check is the system where the work of one person is automatically checked by another to minimize if not completely eliminate the possibilities of fraud or error or irregularity and internal audit is an ongoing review of operations and records undertaken within the entity which is performed by special staff. Saleemi (1997) explained that internal check minimizes theft, error or fraud while internal audit discovers theft, error or fraud already committed.

#### **Administrative Control**

Akani and Akaninyene (2015) noted that Kiabel in 2002 argued that administrative control is established to provide efficient operations and adherence of policies. The GC (2011) added that adherence of policies, efficiency of operations and compliancy with the law and regulation are objectives of administrative control.

Accordingly, Phillips et al. (2008) stated that "the rules of the Sarbanes-Oxley Act of 2002 have led companies to strengthen their internal controls and better inform financial statement users about how effective their accounting systems are in producing accurate financial statements" (p. 238). They added that effective internal control creates an ethical business environment and ultimately improves financial performance. That is, having good financial statements, strong financial performance and wealthy business environment depend on the effectiveness of both financial control and administrative control. For them, internal control helps the company to ensure that the financial statements are prepared correctly (Phillips et al., 2008). Thereby, the role of internal control is to address all risks that threaten the achievement of the company's objectives.

#### **Categories and Types of Internal Control**

#### **Categories of Internal Control**

The financial reports may not be reliable because of intentional or unintentional errors. Accordingly, Garrison et al. (2015) suggest that the intentional or unintentional errors happen because of three reasons. First, the statements may incorrectly exclude some transactions. Second, the statements may improperly include some transactions. Third, the statements may include transactions that have been recorded wrongly. Those problems appear because of lack of controls. That is why Garrity (2014) suggest that to prevent frauds and errors, there should be implementation of internal controls.

Thus, there are four categories of internal controls which can deal with the problems mentioned. There are the directive control, preventive control, detective control and corrective control (Ainsworth & Deines, 2009).

**Directive control.** Directive control is the first step of control. It is used to drive the organization so that undesirable events will not occur by assigning responsibility to each employee. In this control, the management should motivate employees to perform well their job. Directive control provides assurance that each employee knows what he or she should do. Accordingly, Kenkel (2013) confirmed that directive control provides guidance to employees so that risks and loss can be prevented.

**Preventive control.** Preventive control is the second step of control. It is used to prevent undesirable events to occur by segregating duties for example.

**Detective control.** Detective control is the third step of control. It is used to detect undesirable events which have occurred already by verifying transactions for example.

**Corrective control.** Corrective control is the last step of control. It is used to correct detected undesirable events already occurred by correcting errors for example.

#### **Types of Internal Control**

People use internal control in the everyday life such as locking houses and cars, keeping separately the PIN numbers and the debit cards, reviewing the credit card statement for unauthorized charges, keeping receipts to support the tax returns, putting routinely the trash out the day before trash day (Kenkel, 2013). Internal

control is very important in the daily life as it is in the business world. Thus, eight types of internal control in the business world are given below.

**Establishment of responsibility.** Edmonds et al. (2008) quoted that "employees are motivated by clear lines of authority and responsibility" (p. 345). When employees are motivated, they work more than what is expected. That is, there should be an allocation of responsibility so that everyone knows what he or she should do and perform. Each worker must have job description to drive his or her job. Establishment of responsibility is classified as a directive control.

Segregation of duties. To determine who causes error or fraud that occured, each task should not be assigned to only one employee. Such kind of system should be put in place in any entity. That is why segregation of duties is very important. Segregation of duties means the responsibilities are assigned to different peoples and every function should be monitored by one or more responsible persons. Ainsworth and Deines (2009) defined separation of duties as a process of dividing tasks that have the potential for one person to violate company's policies among two or more workers.

Phillips et al. (2008), argue that to have an effective segregation of duties, one employee should not initiate, approve, record any given transaction and the person responsible of the physical handling of assets should not be the same person responsible of recording the transactions related to the same assets. Ainsworth and Deines (2009) remarked that when one worker does certain combinations of works, sometimes it is too easy for that worker to violate the policies of the entity. Accordingly, Edmonds et al. (2008) noticed that when duties are separated, the work of one person can act as a check on the work of another one. They added that whenever possible, different employees should perform the functions of

authorizations, recording and custody. Thus, segregation of duties is classified as a preventive control.

**Restriction of access and information system security.** The access should be restricted. There should be password and access logs to ensure that the right person performs the right responsibility. Ainsworth and Deines (2009) suggest that passwords and firewalls protect the electronic data against viruses and denial-ofservice attacks. This type of internal control is classified as a preventive control.

**Documentation and maintaining records.** Without documentations and records, an entity wouldn't know what transactions have already been or still need to be posted into the accounting system. There should always be a written or electronic evidence to support any transactions. Phillips et al. (2008) argue that many entities use a sequential number attributed to each document to know at the end of the day which number is not entered in the system. Thus, Ainsworth and Deines (2009) added that one important control procedure is to prenumber the documents so that all numbers in a sequence must be accounted for. This type of internal control is classified as a preventive control.

**Verification independence.** Verification is normally assigned to the internal auditor who checks and verifies if all transactions are appropriate and supported by authorized documents. Verification can occur in different ways. The internal auditor should report to the management when errors are detected so that management can correct them. Ainsworth and Deines (2009) argue that entities strengthen their internal control systems by providing independent checks on the performance of workers by having another employee who was not involved in the original activity to check the work. This type of internal control is classified as a detective control.

**Authorization.** No transaction should be processed without authorization. All transactions and all other works should be authorized by the responsible person before they have been performed. It is required that the responsible person formally approve all transactions. Ainsworth and Deines (2009) suggest that in the approval phase, authorization is needed by the worker who initiates a transaction. They added that all transactions should be approved and authorized by the responsible person and sometimes by the board of directors depending on the level of the transaction. Accordingly, Harrison Jr et al. (2013) proposed that the bigger the transactions, the more specific authorization it should have. They added that for some transactions, the entity waits for the approval and the authorization of the top management and may even go to the board of directors. That is, certain types of transactions must be approved by the responsible person according to responsibility assigned. This type of internal control is part of preventive control.

**Reconciliations.** Reconciliation is the process when the data sets are related to another one to identify and resolve discrepancies and inconsistencies (Garrison et al., 2015). It is the most appropriate way to detect if all transactions are well recorded. It is part of cash controlling. Accordingly, to ensure that cash transactions are properly recorded in their accounting records; it is good to compare periodically any entity's records against the outside parties' records (Ainsworth & Deines, 2009). Reconciliation is a control procedure performed periodically to adjust the recorded transactions. This type of internal control is part of detective control.

**Safeguard control.** It is very important to secure and protect the entity's assets. One way to have that security is to have camera system and alarm system within the organization. All doors should be locked properly and have physical

barriers to reinforce the security. There should always be a backup of everything in the accounting system. For that purpose, some entities keep important documents in fireproof vaults. Ainsworth and Deines (2009) supported that safeguarding physical resource is part of internal control system. Entities protect physical assets and accounting records by limiting access to them by unauthorized employees. This type of internal control is classified as preventive control.

If one entity wants to have effective internal control, there should be effective directive control, effective preventive control, effective detective control and effective corrective control designed and implemented in the workplace.

#### Empirical Studies on the Determinants of the Effectiveness of Internal Control

A number of researchers have studied about internal control from different perspectives. For example, Akani and Akaninyene (2015) studied about the Nigerian Banks and found out that effective internal control depends on the presentation of early reports, respect for authority, willingness to effect changes, lack of workers collusion, workers competence, independence of internal control staff, management observance of control, good remuneration of internal control staff, cost of instituting internal control measures, willingness to enforce controls, control measures for unusual transactions, and well-designed organizational structure. They recommended that internal control staff should be made answerable to authorities outside management to promote independence and should be given the autonomy to operate so that proper examination of the activities of executive members can be carried out and high level of ethical standards should be preserved in Nigerian banks to ensure the effectiveness of internal control. Lemi (2015) studied also about the effectiveness of internal control of the public universities in Ethiopia and found out that the determinants of internal control effectiveness are the control environment, control activities, the risk assessment, information flow and communication and monitoring of the internal control system itself. The author recommended that there should be a clear line of responsibility, separation of duties, registration of asset, adequate documentation, identification of possible risks and strategies to control them, good flow of information and continuous monitoring in order to have effective internal control for the Ethiopian's universities.

Ofori (2011) used also the five components of internal control given by the COSO as the determinants of internal control effectiveness. The author studied about the effectiveness of internal control of the Ghana Post Company Limited and found out that there was no internal audit unit in the workplace. Based on the author's findings, the author recommended that government should ensure that the Ghana Post Company Limited establish an internal audit unit to ensure the regular monitoring of the compliance of internal control policies.

Jun (2014) found out that the internal control effectiveness is influenced by the corporate governance structures which involve the participation of the owners with the board of directors and the senior managers in the enterprise start up and in the enterprise development stages. Besides, Nyakundi, Nyamita and Tinega (2014) found out that there is a relationship between internal control and entity's financial performance. The authors recommended that to have effective internal control, small and medium entities should have procedures manual of internal control, internal audit department and be aware of and understand the internal control system.

Though several researches have been conducted on internal control effectiveness and has shown that it depends generally on the five components of

internal control, the current study is different and will contribute to extant literature. This is because the context of the current study is centered on faith-based entities in Madagascar, particularly the SDA Church.

#### **Components of Internal Control**

The effectiveness of internal control depends on the effectiveness of its five components which are: the control environment, risk assessment, information and communication system, control activities, and monitoring of controls (Frimpong et al., 2012; Simmons, 1995; and Larry et al., 2007; Whittington & Pany, 2008). The five components of internal control are discussed below.

#### **Control Environment**

The control environment sets the tone of an organization. Whittington and Pany (2008) noticed that it is the foundation for the other components of internal control. Control environment factors include integrity and ethical value, commitment to competence, board of directors, audit committee, management's philosophy and operating style, organizational structure, assignment of authority and responsibility, and human resource policies and practices. Chen and Shi (2012) pointed out that the control environment does not affect just the other components of the internal control but all the entity's operations. That is why entities should have appropriate control environment in the workplace.

Harrison Jr. et al. (2013) recognized that control environment is the tone at the top level of the business which starts with the owner and the top management. That is, the top management should be an example for the employees. The Southern Africa-Indian Ocean Division of the General Conference of the Seventh-day Adventists (SID) in 2015 suggested that all officers from the GC to the smaller services should

set an example to inspire confidence in the integrity of the entity. That is, the top management should demonstrate the importance of internal control if they want controls to be taken seriously by employees. Accordingly, Messier et al. (2008) quoted that "the control environment can be thought of as an umbrella that covers the entire entity and establishes the framework for implementing the entity's accounting systems and internal controls" (p. 200).

**Integrity and ethical values.** Whittington and Pany (2008) noticed that the effectiveness of internal control depends directly on the communication and enforcement of the integrity and ethical values of the employee responsible of creating, administering, and monitoring controls. There should be a clear articulated statement of ethical values developed by the management.

Edmonds et al. (2008) suggest that the best way to ensure employee honesty is to recruit persons with high level of personal integrity. Chen and Shi (2012) added that personnel integrity and quality are very important because staffs play a dual role in the internal control system. They are at the same time subjects and objects of internal control. They set up and control the internal control and are supervised and controlled by others. That is why they should have a high level of integrity and ethical values.

**Commitment to competence.** Whittington and Pany (2008) assert that all employees should have the skills and competence required to perform their work. If they do not have the competence and essential skills required, they will be ineffective in performing their tasks. The management should hire qualified employees with appropriate level of education and experience. The management should also train the workers and provide adequate supervision. Training seminar is very important as it is

part of directive control (Office of Internal Audit @ Northwestern State University, 2017).

**Board of directors or audit committee.** Whittington and Pany (2008) averred that the effectiveness of the board of directors or the audit committee influences the control environment of the company. They should be independent from the management of the organization because they oversee the actions of the management. According to the SID (2015), the controlling board or executive committee of each entity should establish an audit committee to ensure the transparency and full disclosure on audit matters. The policy added that the audit committee should meet at least annually.

**Management philosophy and operating style.** The way the organization is managed depends on the management philosophy and operating style which have an impact on the reliability of the financial reporting (Whittington & Pany, 2008). To continue, Lymbersky (2014) noticed that entity's failure is the result of insufficient entity strategy. That is, management philosophy, strategy and operating style should be effective in order for entity to be operated effectively and efficiently.

**Organizational structure.** Whittington and Pany (2008) argued that effective planning, directing, and controlling activities and operations depend on a well-designed organizational structure. It assures the segregation of duties and responsibilities of employees.

Chen and Shi (2012) added that organization structure is an assurance that overall entity's objectives will be achieved. Objective achievement is one of the objectives of internal control. Thus, it is very important to have a well-designed organizational structure.

Assignment of authority and responsibility. It is argued that the establishment of responsibility is very important, and to emphasize that, Whittington and Pany (2008) added that all workers should understand well their responsibilities and the regulations which govern their jobs. Job descriptions should be defined clearly by the management to help the employees to perform well their jobs which enhances the control environment of the company. Lymbersky (2014) added that if the entity fails to set up correctly the goal for each employee, it will create a crisis in the internal control system. The quality of work of the employee depends on the load assigned to him or her. Again, assigning effectively the authority and responsibility is very important in the internal control system.

Human resource policies and procedures. Effective internal control of an organization depends on the effectiveness of its personnel (Whittington & Pany, 2008). That is why Whittington and Pany (2008, p.252) quoted that "management's policies for hiring, providing orientation for, training, evaluating, counseling, promoting, and compensating employees have a significant effect on the effectiveness of the control environment."

Normally when the people who run the business is good, then the business is automatically good. Human resource is very important in the internal control system. Accordingly, Edmonds et al., (2008) suggest that ongoing training programs are essential to strengthen the internal control system.

Therefore, an effective control environment is no doubt an environment where honest and competent people understand well their responsibilities and the area of their authority to do the right thing. They behave ethically and follow the policies and procedures of the entity. Thus, to have an effective internal control, it is very important to have an effective control environment.

## **Risk Assessment**

Risks within entity should be controlled. To assess risk, there should be risk identification, risk analysis and evaluation and risk control and report within the entity (Chen and Shi, 2012). Thus, after identifying, analyzing and evaluating risks, entity management control risks by transferring, opposing and dispersing them. Risk assessment is the process for identifying and responding to business risk (Messier et al., 2008). It is argued that "the company must be able to identify its business risk, as well as to establish procedures for dealing with those risks to minimize their impacts on the company" (Harrison Jr et al.2013, p. 236).

Business risks are all barriers which threaten the achievement of the entity's objectives. Whittington and Pany (2008) gave also another process of risk assessment which includes identifying the relevant risks, estimating the significance of those risks and deciding on actions to manage them.

Concerning the risks within the company, some factors may increase them as Whittington and Pany (2008) mentioned. They include changes in the organization's regulatory or operating environment, changes in personnel, new or revamped information systems, rapid growth of the organization, changes in technology affecting production processes or information systems, new business modes, products, or activities, corporate restructurings, expansion or acquisition of foreign operations, and adoption of new accounting principles or changing accounting principles. These factors should be controlled by the management by assessing risks in order to have effective internal control.

# **Information and Communication Systems**

The main problem of any entity is when there is no effective flow of information in the workplace. Management should communicate all information

needed about internal control to all employees so that everyone knows its responsibility in the internal control process and system. Lymbersky (2014) argued that insufficient or ineffective internal communication can create crisis in the workplace. In any entity, everyone needs accurate and timely information to perform well one's job and to take decision. The COSO (2013) viewed that information is needed to carry out the internal control responsibilities that support the achievement of the entity's objectives. There should be a good communication of relevant and quality information within an entity. The COSO (2013, p. 5) quoted that "communication is the continual, iterative process of providing, sharing, and obtaining necessary information."

Frimpong et al. (2012) suggest that there should be mechanisms or system in the workplace so that every worker can obtain and communicate relevant and timely information. In the accounting perspective, the accounting information system provide financial information for managers. Whittington and Pany (2008) contended that an organization's accounting information system consists of the methods and procedures established to record, process, summarize, and report the transactions of the organization and to maintain accountability for the related assets, liabilities, and equity.

Harrison Jr. et al. (2013) argued that accounting information system is the door where the accounting information enters and exits. It is argued that the accounting information systems should identify and record all valid transactions. The information system describes on a timely basis the transactions in sufficient detail and measures the value of transactions. In addition, it determines the time period in which transactions occurred to permit the accountant to record the transactions in the proper

accounting period. And finally, it presents properly the transactions and related disclosures in the financial statements (Whittington & Pany, 2008).

The GC (2011) asserted that communication system includes all procedures and records that inform employees about their responsibility and roles in the accounting and financial reporting process. That is, each employee should understand his or her role and responsibility to perform well his or her job, and that role and responsibility should be communicated correctly.

Thus, to have an effective internal control, relevant information should be obtained and communicated in the right time. That is, having an effective information and communication system is very important.

# **Control Activities**

Control activities are the policies and procedures that support, help and assure that the management's directives are carried out. The management uses these policies and procedures to address the risks which threaten the achievement of the entity's objectives. The Office of Internal Audit @ Northwestern State University (2017) suggests that control activities are the policies and procedures designed to ensure that all the management's directives are carried out.

Atkinson, Kaplan, Matsumura, Young and Kumar (2009) argued that control activities measure and evaluate the performance of existing systems of the company to identify how the systems are contributing to the company's objectives achievement, and Lymbersky (2014) added that insufficient controlling process is the cause of entity's failure. Thus, control activities are very important.

Whittington and Pany (2008) gave different types of control activities which include performance reviews, information processing controls, physical controls, and segregation of duties.

**Performance reviews.** Performance review is about the evaluation of the actual performance compared to the budget, forecasts and prior period performance (Whittington and Pany, 2008). It provides management with an overall indication about the achievement of the organization's objectives and helps the management to take decisions about the change of strategies and plans or take other appropriate corrective action when needed by investigating unexpected performance. Edmonds et al. (2008) suggest that there should be independent verification of employee performance in the internal control process.

**Information processing controls.** All financial information is based on the transactions recorded in the system. That is why Whittington and Pany (2008) argued that control activities are performed to check the accuracy, completeness, and authorization of transactions by using general control activities or application control activities.

**Physical control.** Edmonds et al. (2008) suggest that there should be adequate physical control of valuable assets to reduce or eliminate losses. Physical control over the entity's assets is very important that is why Whittington and Pany (2008) pointed out that there should be periodic comparisons made between accounting records and the physical assets on hand in order to detect waste, loss, or theft of the related assets.

**Segregation of duties.** To continue what have been already said about the segregation of duties, Whittington and Pany (2008) added that the objective of segregation of duties is to eliminate incompatible duties for an employee that would allow him or her to both perpetrate and conceal errors or fraud in performing his or her duties. Edmonds et al. (2008) added that when there is segregation of duties in the accomplishment of an act, the likelihood of fraud or theft is reduced.

## **Monitoring of Controls**

Internal control should be assessed over time that is why there is monitoring of controls. Messier et al. (2008) defined monitoring of controls as a process that evaluate the quality of internal control performance over time. Accordingly, it is important to monitor internal control to determine if it is operating as planned and if any adjustments are necessary (Whittington and Pany, 2008). In addition, Messier et al. (2008) suggest that management should monitor internal control to determine if it is operating effectively. To achieve the established objectives, management should monitor controls.

Monitoring can be done through ongoing activities or separate evaluations. Accordingly, Messier et al. (2008) described the ongoing monitoring activities as regularly performed supervisory and management activities while the separate evaluations as monitoring activities that are performed periodically. Most of the time, the separate evaluations are performed by the internal auditors.

# **Effective Internal Control Indicators**

Dittmeier and Casati (2014) argue that internal control effectiveness indicators involve the design and the performance or effective functioning of internal control system. Thus, the design of control will be discussed first and then the performance of internal control system.

#### **Design of Internal Control**

The internal control system is well designed when it is relevant, timely and strong. The measures of the design of internal control are discussed as follows (Dittmeier & Casati, 2014).

**Relevance**. Relevance is the level to which the control activity addresses the pertinent control objectives under analysis. It is also the capacity of the controls to reduce or intercept fully or partially the negative event.

**Timeliness.** Timeliness is the time needed for controls to respond to negative events including the identification and the correction of the negative event, either by eliminating or limiting its impact on the control objectives.

**Strength.** The strength of a control is determined by a series of factors which are given below:

**Discretion.** It is the level to which the control is discretional and based on strict standards or subjective or just based on human judgment. There should be clear statement of who, what, and how the control is performed.

**Segregation.** It measures the degree of segregation found between the subjects responsible for the different phases of the control itself to ensure the identification, diagnosis, and correction of any errors, irregularities or structural failures.

**Independence.** The independence element measures the capability of the control owner to manage all resources so that the control is most effective, acquiring or integrating resources as needed.

**Integrative control factor (integration).** It is the degree and manner in which the control reinforces other control processes for the same objective.

Automation. It is the degree to which control processes are activated by automated systems that reduce errors derived from human behavior.

Adaptability. How adaptable the control is to fluctuating volumes of activity like for example if the control is vulnerable to the volatility of the controlled activities, it is less effective.

**Traceability.** It is the element that measures how traceable the control is, which allows it to be verified subsequently in all respects.

# **Effective Performance or Functioning of the Internal Control System**

Dittmeier and Casati (2014) argued that the internal control systems or functions are effectively performed when all resources needed to perform the controls are available, there is compliance to the controls as designed; meaning that the controls are considered adequate and there are activities in place which are able to monitor and measure possible residual risks and this ascertains the degree to which control objectives are not reached.

# **Limitations of Internal Control**

Internal control system has limitations because of many reasons. It is important to understand that internal control cannot guarantee the achievement of the entity's objectives because it can break down (Garrison et al., 2015). Accordingly, Whittington and Pany (2008) argue that internal control can protect the entity against errors and frauds and ensure the reliability of accounting information but it is important to recognize that there is inherent limitations of internal control.

The GC (2011) recognizes that no internal control can provide absolute assurance that the entity will achieve all the objectives established. This is because of inherent limitations of internal control.

Messier et al. (2008) supposed that the effectiveness of internal control is subject to certain essential limitations. These include management override of internal control, personnel errors or mistakes, and collusion. Thus, mistakes can occur because of misunderstanding of instructions, mistakes of judgement, carelessness, distraction, or fatigue. It is affirmed that two or more employees may collude to avoid the internal

control system (Whittington & Pany, 2008; Garrison et al., 2015). Edmonds et al. (2008) confirmed that two or more employees working together may hide embezzlement by covering for each other. Harrison Jr. et al. (2013) concurred that two or more workers can work together to beat internal control. They added that management override and human limitations such as fatigue and negligence can circumvent a good system of internal control.

There is also the cost perspective in the limitations of internal control. The cost of having the best internal control system is very high and some companies do not have the ability to afford it. Harrison Jr. et al. (2013) quoted that "the stricter the internal control system, the most it costs" (p. 242). Whittington and Pany (2008) recognized that it is not feasible from a cost standpoint to establish controls that provide absolute protection from fraud and theft.

# CHAPTER 3

# METHODOLOGY

## **Research Design**

The purpose of this study was to explore the determinants of the internal control effectiveness of the IOUC's selected entities in Madagascar. Therefore, causal research design was used to examine the effect of the five components of internal control on the dependent variable which is the internal control effectiveness.

# **Population and Sampling Procedure**

The population refers to the entire group of people that the researcher wants to study and investigate (Sekaran & Bougie, 2013). For this study, the population was all workers within four IOUC's selected entities in Madagascar. These four entities are in the central region of Madagascar. The IOUC's headquarters is in the center of the country but it is not part of the study as it is the higher organization where the researcher should submit the report of the findings of the study. Since the population was relatively small, the entire population was used for the study. Tables 1 and 2 present the target population of the study.

According to that data given in Tables 1 and 2, the total workforce of the IOUC's selected entities for the study was 310 which is composed of the administrators, heads of department, accounting and finance staff, office staff, frontline staff which include the church's district pastors, faculty members and production staff and others. It was possible for this study to contact all the population; therefore, the total population was used by the researcher for data collection.

FUNCTION	FMC	UAZ	SMA	MEA	TOTAL
ADMINISTRATORS	3	4	3	2	12
HEAD OF DEPARTMENT	11	14	7	7	39
ACCOUNTING AND FINANCE	12	5	2	2	21
OFFICE STAFF	25	6	4	6	41
FRONTLINE STAFF (FAC, PASTOR, PROD)	84	20	16	20	140
OTHER	16	35	5	1	57
TOTAL	151	84	37	38	310

Table 1. IOUC's Selected Entities Workforce Details as of November 2017

Table 2. IOUC's Selected Entities Workforce Summary as of November 2017

ENTITIES			WORKFORCE
IOUC's Organizational Unit	Fédération Madagascar Centre	FMC	151
	Université Adventiste Zurcher	UAZ	84
IOUC's Institutions	Système Médical Adventiste	SMA	37
	Maison d'Edition Adventiste MEA		38
TOTAL			310

# **Instrument for Data Collection**

To collect the data, a self-designed questionnaire and structured interviews were used. The objective of the researcher was to get primary data as much as possible.

# Questionnaire

The questionnaire that was used for the study was designed by the researcher based on the review of literature and the SID accounting manual questions used to assess internal control system. It was a self-designed questionnaire composed of closed and open-ended questions. Closed-ended questions are questions that the answers are already given and the respondents will just tick or circle their choice while open-ended questions are questions that give to the respondents the opportunities to give more information by writing their answers. The first part of the questionnaire was the introductory information concerning the researcher and the study. Then, the second part composed three sections. Section A was the personal information of the respondent. This section was composed of closed-ended questions where the respondent can tick the box of the correct information about him or her. Section B of the questionnaire was closed-ended questions about the components of internal control and its effectiveness. These closed-ended questions were a Likert scale of five possible answers. It ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). The respondent just ticked the right answer according to his or her point of view. And the last section had open-ended questions where the respondent freely expressed his or her observations and ideas about the internal control system of the entity where he or she is working.

# Interviews

Interview sessions were conducted to gain more information to supplement the questionnaire results. Interviews were conducted with the employees in the finance department and the management. Structured group interviews for each group were conducted. Different questions were used for each group according to the information they knew and the information the researcher desired to get. Besides, data was planned to be collected from the auditor's reports of each IOUC's entities to support the results but they were not cooperative.

# **Instrument Validity and Reliability**

**Instrument validity.** To test the validity of the instrument, face validity and content validity have been used. Face validity is the initial review of the research

instrument by a group of untrained individuals. This should occur in the pilot study or in a focus group where target respondents are asked whether they understand the questions and where the feedback can be used to revise the questionnaires. For the present study, face validity was used with a group of untrained individuals from UAZ. On the other hand, content validity ensures that the measure includes an adequate and representative set of items that tap the concept. Content validity is obtained when account has been taken of the views of experts in this specific area on the content and relevance of the survey instruments. The two researcher's advisors were the experts that validated the content of the survey instruments of the study.

**Instrument reliability.** To test the reliability of the instrument, inter-item consistency reliability, which is Cronbach's coefficient alpha, has been used to test the consistency. According to Sekaran and Bougie (2013), the more the Cronbach's alpha is close to 1, the more the internal consistency reliability.

Tuble 5. Lee Cronoach Renability Estimation Table				
Cronbach's alpha	Internal consistency			
$\alpha \ge 0,9$	Excellent			
$0.8 \le \alpha < 0.9$	Good			
$0,7 \le \alpha < 0,8$	Acceptable			
$0,6 \le \alpha < 0,7$	Questionable			
$0,5 \le \alpha < 0,6$	Poor			
$\alpha < 0,5$	Unacceptable			
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Table 3. Lee Cronbach' Reliability Estimation Table

Source: Lemi, 2015.

It is very important to start with the reliability test of the study instrument. Cronbach's alpha coefficient is used to test the reliability and validity of the data collected through the questionnaire used in the study. A common accepted rule of thumb for describing internal consistency using Cronbach's alpha is as given in Table 3.

*Table 4*. Reliability Statistics of the Survey Instrument

Cronbach's Alpha	Number of Items
.948	51

Source: Survey Results and SPSS Computation, 2018.

Looking one by one at each variable, Table 5 indicates that all coefficients are above 0.7 which means acceptable where 0.811 for control environment, 0.829 for risk assessment, 0.820 for information and communication system, 0.701 for control activities, 0.708 for monitoring of control and 0.875 for the effectiveness of internal control. Accordingly, the survey instrument used for the study is valid and the data are highly consistent according to the range of the Cronbach's alpha.

*Table 5.* Reliability Statistics of Each Variable of the Survey Instrument

Variables	Cronbach's Alpha	Number of Items
Control Environment	.811	13
Risk Assessment	.829	8
Information and Communication System	.820	8
Control Activities	.701	9
Monitoring of Control	.708	4
Effectiveness of Internal Control	.875	9

Source: Survey Results and SPSS Computation, 2018.

#### **Data Collection Procedure**

After receiving approval from AUA, IOUC, and the selected IOUC's entities the researcher has run a pilot study prior to the actual study in order to correct possible flaws in the instrument.

The questionnaire was given to the respondents and they had one month to complete it and to give it back to the researcher. The researcher centralized the point of collection at the conferences within the IOUC to make the questionnaires' collection easy. The researcher collected the filled questionnaires at the conference. For those respondents who the researcher could not reach physically the questionnaire was sent and collected through email.

For the interviews, as it were group interviews, the researcher conducted them through either skype or phone or face to face, according to the prevailing situation.

#### **Method of Data Analysis**

After collecting all the data from the population, the researcher analyzed them to test the research hypotheses. The Statistical Package for the Social Sciences (SPSS) was used to analyze all the data. To make the data ready for analysis, the first step was coding and data entry. Then the researcher edited the data entries to ensure accuracy and proceeded to analysis. Internal consistency test, Cronbach's alpha, was used to test the survey instrument reliability.

Descriptive statistics was used to summarize the general characteristics of the respondents. Correlation was used to show the relationship between the variables while multiple regression analysis was used to test the research hypotheses.

## **Ethical Considerations**

Because human participation was involved in this research, all of the following steps have been followed carefully and sequentially to avoid any ethical misconduct.

It started with the approval from the MBA research committee of the Adventist University of Africa of the research proposal including the questionnaire and the interview guide. That first step is very necessary before conducting the study. After receiving that approval, there was an approval from IOUC for the researcher to conduct the study. Then, institutional consent and approval was granted by the participating entities. Those entities received a report showing the summary and the result of the study.

One important thing is the instruction for the individual participants. An introductory letter to the questionnaire was given to each participant explaining the objective of the study and the showing how confidentiality was maintained. In the questionnaire, instructions have been given to guide the participants about giving their answers and inputs. The questionnaire was anonymous so there was no need for participants to write their name in the questionnaire. Each employee was free to participate according to the number of the population and each participant can freely withdraw from the study at any time with no sanction.

In addition, to avoid plagiarism, the work of others used in this research has been acknowledged and all references were clearly given.

# CHAPTER 4

# **RESULTS AND DISCUSSION**

The previous chapter discussed about the methodology that was used and this chapter presents the results and analysis of the survey and interviews that were conducted for the study. The chapter is organized into three broad sections which are the response rate, the demographic characteristics of respondents and the results and discussions based on the RQs.

#### **Response Rate**

The study was conducted with four IOUC's selected entities and the response rate of the population is given in Table 6. According to Table 6, the total respondents were 202 out of 310 that were distributed questionnaires. Accordingly, the response rate for the study was 65.16%.

According to the response rate from Table 6, the MEA is more responsive than the three other entities. It represents 76.32% of its population followed by UAZ (66.67%) then the FMC (62.25%) and the last was the SMA (62.16%).

While looking at the frequency of the respondents, Table 6 shows that the majority is from the FMC represented by 94 respondents, followed by UAZ (56 respondents), then the MEA (29 respondents) and, the last, the SMA (23 respondents).

The response rate of the study is 65.16% represented by 202 respondents over 310 allows the researcher to analyze the data collected form the survey and the interview.

Table 6. Response Rate							
E	ENTITIES			RESPON- DENTS	RESPONSE RATE		
IOUC's Organizational Unit	Fédération Madagascar Centre	FMC	151	94	62.25%		
IOUC's Institutions	Université Adventiste Zurcher	UAZ	84	56	66.67%		
	Système Médical Adventiste	SMA	37	23	62.16%		
	Maison d'Edition Adventiste	MEA	38	29	76.32%		
	TOTAL		310	202	65.16%		

Source: Survey Results and Own Computation, 2018.

# **Demographic Characteristics of Respondents**

The first section of the questionnaire was intended to get data on the background of each respondent and related to the demographic characteristics of the respondents which show that data collected was inclusive of all gender. The demographic results are shown below.

# **Gender Categories of the Respondents**

As indicated in Table 7, the gender proportion of the male respondents is

73.8% while the female respondents were 26.2%.

Tuble 7.		the Responden	15		
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	149	73.8	73.8	73.8
	Female	53	26.2	26.2	100.0
	Total	202	100.0	100.0	

Table 7. Gender of the Respondents

Source: Survey Results and SPSS Computation, 2018.

## Age Distribution of the Respondents

According to Table 8 below, each age group was represented but of the age group 30-39 years were the most represented in the study with 45.5% followed by the age group 20-29 years represented with 27.7% then the age group 40-49 years represented with 15.8% then the age group 50 or more represented with 10.4% and the smallest is age group 19 or less represented with 0.5%. Accordingly, the respondents of the study are a mixture of five different age group. All of them give the total of 100%.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19 or less	1	.5	.5	.5
	20-29 Years	56	27.7	27.7	28.2
	30-39 Years	92	45.5	45.5	73.8
	40-49 Years	32	15.8	15.8	89.6
	50 or more	21	10.4	10.4	100.0
	Total	202	100.0	100.0	

Table 8. Age Distribution of the Respondents

Source: Survey Results and SPSS Computation, 2018.

Looking at the frequency, Table 8 shows how the age group 30-39 years represents the most with 92 respondents. The age group 20-29 years was represented by 56 respondents. The age group 40-49 years was represented by 32 respondents. The age group 50 or more was represented by 21 respondents. The smallest frequency which is just 1 respondent represents the age group 19 or less. The total of the respondents according to the age is 202 means that the age distribution of the respondents was represented 100% for the study.

## Year of Service of the Respondents

The year of service given in this study through Table 9 represents the number of year of service where each respondent serves actually but not the total year of service of the respondents' professional life.

		Frequency	Percent	Valid percent	Cumulative percent
Valid	1-4 Years	62	30.7	30.7	30.7
	5-9 Years	67	33.2	33.2	63.9
	10-14 Years	45	22.3	22.3	86.1
	15 or more	28	13.9	13.9	100.0
	Total	202	100.0	100.0	

Table 9. Year of Service of the Respondents

Source: Survey Results and SPSS computation, 2018.

Accordingly, the most represented year of service group is 5-9 years equals to 33.2%. 30.7% of the respondents represents the year of service group 1-4 years. 22.3% of the respondents represents the year of service group 10-14 years. 13.9% of the respondents represents the year of service group 15 or more. The four groups of year of service of the respondents give the total of 100% of the respondents which is a good indication for the researcher.

Table 9 shows clearly also the frequency represented by each group of year of services. The year of service group 5-9 years represents 67 respondents. The year of service group 1-4 years represents 62 respondents. The year of service group 10-14 years represents 45 respondents. The year of service group 15 or more represents 28 respondents. All of them gives the total of 202 respondents which represents 100% of the respondents.

Accordingly, the year of service more than 5 years represents 140 respondents over 202. That frequency represents 69.3% of the respondents which is a good indication because the experience of the respondents is very important when talking about internal control in an entity. The literature indicated that commitment to the respondents' competencies is one key to have effective control environment.

On the other hand, that percentage 69.3% gives assurance that the response form 140 respondents is reliable concerning internal control effectiveness.

# **Educational Level of the Respondents**

One another aspect of the commitment to competence is the educational level of the respondents. Educational level contributes to the effectiveness of internal control. Table 10 shows the percentage represented in each group of educational level of the respondents. The Bachelor's Degree is the most represented with 47.5% followed by the Master's Degree with 18.3% then the other with 15.8% then the Diploma with 12.4% and the smallest is the Doctoral with 5.9%. The other represents the educational level below diploma. Accordingly, 71.7% of the respondents is the educational level bachelor's degree and above which means that the majority of the respondents received adequate education and the data collected for the study is reliable according to the educational level of the respondents.

The frequency attributed to each educational level of the respondents is clearly given also in Table 10. The Bachelor's Degree represents 96 respondents followed by the Master's Degree represented with 37 respondents.

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Diploma	25	12.4	12.4	12.4
	Bachelor's Degree	96	47.5	47.5	59.9
	Master's Degree	37	18.3	18.3	78.2
	Doctoral	12	5.9	5.9	84.2
	Other	32	15.8	15.8	100.0
	Total	202	100.0	100.0	

Table 10. Educational Level of the Respondents

Source: Survey Results and SPSS computation, 2018.

Then, the educational level below the diploma represented by other in the chart represents 35 respondents followed by the Diploma represented with 25 respondents. The educational level doctoral represents the smallest frequency with 12 respondents. The total respondents according to the educational level of the respondents is 202 which represents 100% of them. Accordingly, 145 respondents have appreciably high level of education.

## **Department of the Respondents**

The variable "Department of the respondents" seeks to identify the types of jobs performed by the respondents. Table 11 shows that most of the respondents is a frontline staff represented with 47%. Then the other departments including the cleaning, security department and other, represents 20.3% followed by the office staff represented with 12.4%. The head of department represents 11.4% of the respondents followed by the accounting and finance department represented with 5% of the respondents. The smallest group represented with 4% of the respondents is the administration.

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Administration	8	4.0	4.0	4.0
	Head of department	23	11.4	11.4	15.3
	Accounting and Finance	10	5.0	5.0	20.3
	Office Staff	25	12.4	12.4	32.7
	Frontline Staff	95	47.0	47.0	79.7
	Other	41	20.3	20.3	100.0
	Total	202	100.0	100.0	

Table 11. Department of the Respondents

Source: Survey Results and SPSS Computation, 2018.

Accordingly, the majority of the respondents is from the frontline staff and other staff other than administration and the head of department. This majority represents 84.6% of the respondents. This percentage shows that there is no influence from the administration on the findings of the study.

As the frequency shows clearly the distribution between the departments used for the study, Table 11 presents also the frequency of each department. Frontline staff represents 95 respondents while the administration just represents 8 respondents which is the smallest group. Between these two departments, the other department represents 41 respondents followed by the office staff represented with 25 respondents followed by the head of department represented with 23 respondents followed by the accounting and finance department represented with 10 respondents. The total respondents according to the department is 202 which represents the 100% of the respondents. Accordingly, the administration is a very small group comparing to the total respondent which means that the findings of the study is based not on the administration response to the questionnaire.

# Results and Discussions Based on the Research Questions

This section presents the results of the survey used to collect the data for the study. All the results are discussed in this section based on the RQs given in Chapter one.

### **Descriptive Statistics for Variables**

**Control environment.** The control environment indicates the general atmosphere of internal control atmosphere surrounding the internal control system. It includes the integrity and ethical value, and commitment to competence by the board of directors, audit committee, management's philosophy and operating style, organizational structure, assignment of authority and responsibility, and human resource policies and practices. The result of the survey based on the components of control environment is shown in Table 12.

In general, from Table 12, the overall mean of the control environment is 3.9318, indicating an agreement in the 13 elements of the control environment given in the table. The highest mean 4.1832 indicates that the majority of the respondents agreed that their workload permits them to effectively do their tasks in their respective workplace.

	Ν	Min	Max	Mean	SD
CE01 - Clear codes of conduct and/or ethics policies of the entity exist and communicated to me	202	2	5	3.9802	.70507
CE02 - I understand the conflict of interest statement of the entity and I accept it.	202	1	5	4.1089	.77781
CE03 - I am encouraged to comply with the denominational working policies and the applicable law of the country.	202	2	5	4.1584	.66516
CE04 - My function and my responsibility are appropriate to my competency and my qualification.	202	1	5	4.1485	.71774
CE05 - My workload permits me to effectively do my tasks.	202	2	5	4.1832	.72696
CE06 - My background was checked before the entity's management hired or assigned me to my current job.	202	1	5	4.1089	.83339
CE07 - I received adequate training to perform effectively my tasks.	202	1	5	3.8465	.82932
CE08 - For the well-functioning of the internal control system, regular training exists within the workplace for all employees.	202	1	5	3.5396	.95204
CE09 - In my point of view, the management philosophy and operating style are appropriate for the entity's environment.	202	1	5	3.6634	.84379
CE10 - The organizational structure or chart of the entity is clearly defined.	202	1	5	3.8069	.83895
CE11 - The organizational structure of the entity is appropriate for the entity's size and function.	202	1	5	3.7921	.83239
CE12 - My role and my responsibility are assigned clearly	202	1	5	4.1188	.79535
CE13 - Human resource policies and practices of the entity are formalized and communicated to me.	202	1	5	3.6584	.82084
Overall mean of the control environment	202	2.23	4.92	3.9318	.44160
Valid N (listwise)	202				

# Table 12. Descriptive Statistics for Control Environment

Source: Survey Results and SPSS Computation, 2018.

In an effective control environment, the workload of the worker must be appropriate to his or her responsibility for him or her to effectively do the job. In addition, each employee is encouraged to comply with the denominational working policies and the applicable law of the country. As indicated in Table 12, the majority of respondents agreed that they are encouraged to comply with those policies and law as the mean value from the table is 4.1584. For the control environment to be effective also, there should be regular training of all employees. The mean value given by Table 12 for that is 3.5396 can be considered generally not good. The other areas that are not strong include whether the management philosophy and operating style are appropriate for the entity's environment with a score of 3.6584.

Finally, the other elements of the control environment are good enough for the four IOUC's selected entities. Accordingly, the indications from Table 12 represent that generally, the control environment of the four IOUC's selected entities is effective.

**Risk assessment.** All risks within the entity should be assessed for the wellfunctioning of the entity itself. As risk assessment is the process for identifying and responding to the risk of the entity, it is very important for the internal control system to have an effective risk assessment. That is, there should be strategies for identifying and responding risk.

The results from survey based on the elements of risk assessment and the result is scaled in Table 13.

The highest mean is 4.0594 indicates that the majority of the respondents understand what risk is all about. That understanding is very important for the risk assessment process. But according to Table 13, for the other elements of risk assessment, the mean values indicate a doubtful situation.

	Ν	Min	Max	Mean	SD
RA01 - I understand what risk is all about.	202	2	5	4.0594	.67392
RA02 - I understand the risk assessment process of my department.	202	2	5	3.6782	.74006
RA03 - In my department, there is clear strategy used to identify risks.	202	1	5	3.4752	.88766
RA04 - In my department, all identified risks are appropriately evaluated.	202	1	5	3.4950	.83008
RA05 - In my department, all identified and evaluated risks are corrected in an appropriate way.	202	1	5	3.6139	.81002
RA06 - In my department, there is follow-up action used to confirm if identified risks are eliminated.	202	1	5	3.5446	.85838
RA07 - My department's environment promotes the well-functioning of the risk assessment process.	202	1	5	3.4802	.78677
RA08 - Risks and other issues within my department are assessed on an ongoing basis.	202	1	5	3.4455	.82227
Overall mean of risk assessment	202	1.88	4.88	3.5990	.54216
Valid N (listwise)	202				

Table 13. Descriptive Statistics for Risk Assessment

Source: Survey Results and SPSS Computation, 2018.

Many of the respondents are not sure that clear strategy for identifying and correcting risk exists within each entity. That is, it may not be designed appropriately. The lowest mean 3.4455 presents also a danger for the IOUC's entities as it indicates that risks and other issues within the entity are not assessed on an ongoing basis which is one element that each entity should have to have an effective risk assessment.

Accordingly, Table 13 shows that risk assessment of the four IOUC's selected entities is not sufficient as it could be as the overall average mean for risk assessment is 3.5990.

# Information and communication system. Information is needed for each

level of entity's hierarchy for decision making purpose.

	Ν	Min	Max	Mean	SD
IC01 - The entity's objectives and goals are communicated to me.	202	1	5	4.1634	.75181
IC02 - My department's objectives are communicated to me.	202	1	5	4.1188	.75029
IC03 - Job description was given to me in order to clearly communicate my authority and my responsibility.	202	1	5	3.8416	1.02441
IC04 - There are established channels of communication for me to receive and share important information concerning my job.	202	1	5	3.8465	.83530
IC05 - All instruction and information I need to effectively perform my tasks are communicated to me in an appropriate way.	202	1	5	3.8218	.82131
IC06 - There is regular meeting when all relevant general information is communicated to all employee.	202	1	5	3.9950	.84933
IC07 - I am encouraged to report suspected improprieties to my supervisor or to the management.	202	1	5	3.9455	.89887
IC08 - My personal account is communicated periodically in the appropriate way.	202	1	5	3.8713	.84245
Overall mean of information and communication system.	202	2	5	3.9505	.56567
Valid N (listwise)	202				

Table 14. Descriptive Statistics for Information and Communication System

Source: Survey Results and SPSS Computation, 2018.

Effective information and communication system leads to a well-functioning of the entity as whole as it ensures the well flow of relevant information. The survey result and analysis on the elements of information system is presented in Table 14. To work effectively, each employee should understand first the entity's objectives. As indicated in the Table 14, the majority of the respondents agree that the entity's objectives are communicated to them. The mean value for this is 4.1634.

According to Table 14, the majority of the respondents generally agreed about all elements of information and communication system used for the study as the overall average mean is 3.9505. But for the job description, the standard deviation 1.02441 indicates that some respondents disagree about the statement that job description was given in order to clearly communicate authority and responsibility.

**Control activities.** Control activities which include performance reviews, information processing controls, physical controls, and segregation of duties, are the policies and procedures that support, help and assure that the management's directives are carried out. Having effective control activities is primordial for the internal control system.

The result of the survey in Table 15 indicates that the majority of the respondents agreed that there is stock manager within the workplace for all stock management purpose as the mean value 4.2376 indicates. For a physical security of the entity's physical assets, there should be security guards in the workplace to ensure that responsibility is carried out. Table 15 shows that the majority of the respondents agreed that there is security guard in the entity where they are working. But the standard deviation 1.02230 should be considered as it means that some respondents disagree about that statement.

One very important point that Table 15 indicates is that a large number of the respondents are not sure that there is a periodical review of their performance with a regular and appropriate way as the mean value for that statement is 3.5347. Then, they

disagreed that they report monthly to their supervisor of what they achieved during the period as the mean value for it is 3.5842 with a standard deviation of 1.00513.

	Ν	Min	Max	Mean	SD
CA01 - I report monthly to my supervisor what I achieved during the period.	202	1	5	3.5842	1.00513
CA02 - There is a periodical review of my performance with a regular and appropriate way.	202	1	5	3.5347	.87034
CA03 - My performance is reviewed based on the objectives I should reach.	202	1	5	3.8119	.80685
CA04 - There is stock manager in my workplace to manage all kind of stock of the entity.	202	1	5	4.2376	.70037
CA05 - There is security guard in the entity where I'm working.	202	1	5	4.2327	1.02230
CA06 - Adequate physical security for cash and other assets subject to theft is provided in my department.	202	1	5	3.8515	.89093
CA07 - There is segregation of duties in my department.	202	1	5	3.8069	.73122
CA08 - Every financial transaction I did is approved in advance by the appropriate authorized persons.	202	1	5	3.9950	.96453
CA09 - My work is checked and verified by others to ensure integrity.	202	1	5	3.7327	.87975
Overall mean of control activities.	202	2.33	4.89	3.8652	.47838
Valid N (listwise)	202				

Table 15. Descriptive Statistics for Control Activities

Source: Survey Results and SPSS Computation, 2018.

Control activities of the four IOUC's selected entities are in general effective as the overall average mean is 3.8652 but this component of internal control is room for improvement. **Monitoring of control.** The objective of internal control is that the entity achieves its desired objectives. Ongoing monitoring of control is one important key for ensuring that. Monitoring of controls is the process that evaluates the quality of internal control performance over time. In general, the internal auditor of the entity is responsible of that process that is why having an internal auditor is very important for the internal control system.

The result of the survey for monitoring of control is presented in Table 16.

	Ν	Min	Max	Mean	SD
MC01 - Routinely evaluation of the internal control effectiveness exists in my department.	202	1	5	3.6733	.62468
MC02 - There are on-going processes to monitor if the internal control is effectively operating in my department.	202	1	5	3.6683	.69389
MC03 - There are on-going processes to monitor if any adjustments in the internal control system are necessary in my department.	202	1	5	3.6832	.75219
MC04 - There is internal auditor in the entity where I'm working.	202	1	3	1.8020	.56463
Overall mean of monitoring of control	202	1	4.50	3.2067	.48386
Valid N (listwise)	202				

Table 16. Descriptive Statistics for Monitoring of Control

Source: Survey Results and SPSS Computation, 2018.

In general, the monitoring of control of the four IOUC's selected entities are not effective. The overall average mean of monitoring of control is 3.2067 which indicate that there are areas of improvements.

One very important thing indicated by Table 16 is that there is no internal auditor in the four IOUC's selected entities as the mean value for it is 1.8020. That

indication represents a danger of those entities as there is no one responsible for the monitoring of control of the entity in the workplace.

Accordingly, the majority of the respondents do not believe that monitoring of control of the IOUC's selected entities is on continuous basis.

**Effectiveness of internal control.** Internal control is effective when it is well designed and well performed. Internal control is well designed when it is relevant, timely and strong and it is well performed when in general, there is no residual risk.

The survey made for the effectiveness of internal control gave the results scaled as given in Table 17.

Except the first statement of the effectiveness of internal control, according to the standard deviation given in Table 17 for the other elements, a large number of the respondents doubt about the effectiveness of internal control of the four IOUC's selected entities. The overall average mean is 3.6502 which indicated that the internal control tends to be ineffective.

	Ν	Min	Max	Mean	SD
EIC01 - The control activity in my department addresses the established control objective.	202	1	5	3.8069	.70348
EIC02 - The response to an identified risk in my department is simultaneous to the risk event or occurrence.	202	1	5	3.4752	.87638
EIC03 - The person who is the responsible of the control in my department is clearly established.	202	1	5	3.7822	.87080
EIC04 - All controls in my department fully check any previous controls for completion and correction purpose.	202	1	5	3.6386	.67882
EIC05 - The control process of my department is adaptable to all types of activity without impacting negatively anything.	202	1	5	3.5941	.74217
EIC06 - The control process of my department allows any subsequent checking or re-performance of any operation at any time.	202	1	5	3.7079	.69026
EIC07 - At any time, all resources needed to perform the control of my department were available for all levels of activity.	202	1	5	3.5396	.72682
EIC08 - All control process in my department follow the predefined control procedures.	202	1	5	3.6584	.73108
EIC09 - The assessment process used in my department addresses all risks.	202	1	5	3.6485	.76635
Overall mean of effectiveness of internal control.	202	1.22	4.89	3.6502	.53566
Valid N (listwise)	202				

Table 17. Descriptive Statistics for Effectiveness of Internal Control

Source: Survey Results and SPSS Computation, 2018.

**Open-ended questions result.** Two open-ended questions were used for the study to collect additional information.

The first question was what are the general ideas about internal control that are implemented by the entity?

For the four IOUC's selected entities in Madagascar, the majority of the respondents said that the internal control implemented is good enough and effective but there are improvements that should be done. Some respondents mentioned that it is subjective but not objective. Accordingly, in general, the internal control implemented by those entities are good and tends to be effective but it should be improved and followed by each employee as it should not be neglected. *The second question was what do you consider are the areas of internal control that need improvement in the entity?* 

According to the majority of the respondents:

- Each employee should have job description to effectively do the job.
- Information should be communicated correctly especially the entity and department's objectives.
- Communication and relationship between the management and employees should be improved.
- The correction of risk identified should be immediately.
- The internal control of entity should be consistent and clear for every worker.
- There should be enough training about internal control and it should be implemented in each department or section.
- Human resource should be treated correctly for motivation purpose and each employee must report to the supervisor for the evaluation purpose of the performance.

- Trust between the management and the workers should be improved.
- For the physical assets, there should be periodic proper inventory.
- There should be periodical budget control.
- Cash control and management should be improved.
- There should be a permanent internal auditor to assess the internal control of the entity.

Accordingly, each area of internal control of the four IOUC's selected entities used for this study is room for improvements.

#### **Interview Results**

Interviews for four groups of employees were planned to be done. However, the interviews were made with the management and the finance team only. It is because the GCAS team was unwilling to participate due to various reasons including absence of an internal auditor. The results from the interviews as per interview guide used for the study are as follows:

**Management.** Ten questions were used to collect more information from the management. The questions and their answer are presented as follows.

1. Do you collectively take decisions or they are controlled by one dominant individual?

The management team answered yes to the first question. They explained that each significant decision is made by the Administrative Committee (ADCOM), some by the existing sub-committee. Some administrators mentioned that there are decisions which are taken by the Board Committee with the union.

2. Do audit and other control systems exist to periodically test for compliance with codes of conduct or policies?

According to the majority of the management team audit exist periodically.

3. To what extent are employees encouraged to report suspected improprieties to management or the governing committee of the entity?

According to the management team response, their employees are encouraged to report all suspected improprieties but the challenge as one administrator mentioned is that the culture in Madagascar which is one of "Fihavanana" push employees to not report to the high authority.

4. To what extent are clear objectives for all key activities of the entity documented and communicated to employees in order to provide effective direction on risk assessment and control issues?

According to the management team response, there is strategic plan in the entity where the objectives of each department and of the entity are documented. About the communication of it, it should be ongoing as some administrators mentioned to remind everyone about it. Some administrators said that the entity's objectives are set annually and communicated to the employee.

5. Do you consider and appropriately address technology issues of the entity? Technology is on the up as the management team mentioned. All of them during the interview said that nowadays technology is very primordial. According to them, all technology issues of the entity are considered and addressed. Some administrators mentioned that as the entity is far from the town where technology is not easily serviced, the cost related to it is much higher which impacts the entity ability to improve technologically.

6. Do you discuss and appropriately consider control issues when planning an activity?

According to the management, the response to this question is yes.

7. Do you receive timely, relevant and reliable information for decision-making?

As the management team interviewed said, they try to ensure information is issued timely.

8. Does the board of directors of the entities control effectively the entity? According to the management team' response, some said that the board of directors do not control, effectively, the entity and some said that the board do. Some administrators mentioned that the board of directors is reactive rather than proactive.

9. Do you compare actual result with the voted budget at regular intervals? According to the majority of the management team, comparison of actual result with the voted budget exists at regular intervals. Some explained that the financial statements and the budget are discussed together within the committee.

10. Do you consider the audit findings and recommendations and take adequate actions?

Absolutely! as the majority of the management team answered. They mentioned that improvements are necessary.

Accounting and finance department. Another ten questions were used for another group in order to collect additional information. They are summarized as follows.

To what extent are your accounting procedures clearly segregated?
 As the accounting and finance team explained during the interview session, segregation of duties exists within the accounting and finance office.

2. To what extent are all financial transactions reviewed by the key managers? According to them, each financial transaction is reviewed by the key managers. As they explained, the chief accountant or the associate treasurer and the chief financial officer are responsible of that.

3. Do processes exist for independent verification of transaction to ensure integrity?

Independent verification should be done by the internal auditor as they said. As there is no internal auditor within the entity as they mentioned, verification of transaction to ensure integrity is done by the key managers and the external auditor during the audit time.

4. Does a system exit in your department to ensure that duties are rotated periodically?

Not really as the accounting and finance team mentioned during the interview.

5. Do the location and use of all equipment of the entity get tracked correctly? For big equipment, it is tracked correctly according to them. For small tool and equipment, it remains a challenge for the entity.

6. Is adequate physical security for cash provided in the entity?

According to the accounting and finance team, there is physical security for cash in the entity. Some explained that there is a safe within the entity where cash is putted in.

7. Can you explain the system of reconciliation of the entity?

According to them, one employee in the accounting office is responsible of reconciliations. Official statement form reconciled entity is used for the reconciliation purpose. Another accountant posts all needed posting related to the reconciliation process.

8. Does the manager or employee other than the preparer review and approve the reconciliations?

All reconciliations, bank or others, are approved by the Chief Financial Officer (CFO) and signed by the preparer as they said.

9. Does the employee independent of recording and processing transactions prepare the entity financial statement?

According to the majority of them, the preparer of the entity financial statement is an employee independent of recording and processing financial transactions. Generally, it is the chief accountant who prepares it according to them.

10. To what extent are financial statements prepared at frequent or regular intervals?

Monthly, the committee approved the entity financial statements according to what the accounting and finance team said during the interview. That means, financial statements are prepared at regular intervals.

#### **Testing Hypotheses**

Before testing the hypotheses of the study which are related to the six RQs, it is better to know first the relationship between the variables. If there is no relationship then automatically there is no effect. Pearson Correlation is used to explain the relationship between the variables and regression is used to show the effect.

According to Table 18, control environment has a positive relationship of the four other components of internal control. The highest correlation is between control environment and information and communication system (r = .737, p < .01) which means that there is a positive and strong relationship between control environment and information and communication system. That correlation is statistically significant.

Then Table 18 shows also that the correlation between control environment and control activities is positive, strong and statistically significant (r = .703, p < .01) followed by the correlation between control environment and risk assessment (r =

.610, p < .01). The lowest correlation is between control activities and monitoring of control as it remains positive (r = .469, p < .01).

Looking at the relationship between the five components of internal control and the effectiveness of internal control of the IOUC's selected entities, Table 18 shows the positive correlation of r = .674 between control environment and internal control effectiveness with a p < .01. It is statistically significant too.

Then the correlation between risk assessment and internal control effectiveness is positive too and statistically significant (r = .691, p < .01). Table 18 shows also the positive, strong and significant correlation between information and communication system and internal control effectiveness (r = .753, p < .01). The control activities have also a positive relationship of the effectiveness of internal control and it is very significant and strong (r = .738, p < .01). Then the last component is monitoring of controls which has also a positive and significant relationship of the effectiveness of internal control of the IOUC's selected entities (r = .610, p < .01).

Accordingly, there is no doubt to say that the relationship between the control environment and the four other components of internal control of the IOUC's selected entities exists as well as the relationships between control environment, risk assessment, information and communication system, control activities and monitoring and the dependent variable which the effectiveness of internal control of the IOUC's selected entities in Madagascar which are significantly strong and positive.

		Effectiven ess of Internal Control	Control Environme nt	Risk Assessme nt	Information and Communicat ion System	Control Activiti es	Monitori ng of Control
Effectiveness of Internal Control	Pearson Correlati on	1	.674**	.691**	.753**	.738**	.610**
	Sig. (2- tailed)		.000	.000	.000	.000	.000
	Ν	202	202	202	202	202	202
Control Environment	Pearson Correlati on	.674**	1	.610**	.737**	.703**	.469**
	Sig. (2- tailed)	.000		.000	.000	.000	.000
	Ν	202	202	202	202	202	202
Risk Assessment	Pearson Correlati on	.691**	.610**	1	.617**	.585**	.454**
	Sig. (2- tailed)	.000	.000		.000	.000	.000
	Ν	202	202	202	202	202	202
Information and Communicat	Pearson Correlati on	.753**	.737**	.617**	1	.721**	.453**
ion System	Sig. (2- tailed)	.000	.000	.000		.000	.000
	Ν	202	202	202	202	202	202
Control Activities	Pearson Correlati on	.738**	.703**	.585**	.721**	1	.553**
	Sig. (2- tailed)	.000	.000	.000	.000		.000
	Ν	202	202	202	202	202	202
Monitoring of Control	Pearson Correlati on	.610**	.469**	.454**	.453**	.553**	1
	Sig. (2- tailed)	.000	.000	.000	.000	.000	
	Ν	202	202	202	202	202	202
Sig. 0.01 (2-tai	led) **						

# Table 18. Pearson Correlation Matrix of Internal Control Variables

Source: SPSS result, 2018.

Is it automatic that because of the positive relationships between the variables that there is effect of the independent variables on the dependent variables? Multiple regression is used to answer the RQs and to test the hypotheses.

The RQs and the null hypotheses related to them are answered and tested below.

 Table 19. Regression Model Summary

Model	R	R square	Adjusted R square	Std. Error of the Estimate
1	.853 <sup>a</sup>	.728	.721	.28273

 a. Predictors: (Constant), Monitoring of Control, Information and Communication System, Risk Assessment, Control Environment, Control Activities
 Source: SPSS result, 2018

Looking at the adjusted R square in Table 19, the monitoring of control, information and communication system, risk assessment, control environment and control activities account for 72.1% on the effectiveness of internal control of the IOUC's selected entities.

Table 20, the analysis of variance (ANOVA), shows that the regression model related to the present study is statistically significant (F = 105.095, p < .01).

**RQ1.** Does the control environment of the four IOUC's selected entities in Madagascar have a relationship of their risk assessment, information and communication system, control activities and monitoring of controls? The null hypothesis related to that first RQ is that  $H_{0_1}$ : Control environment has no relationship of the four other components of internal control system of the four IOUC's selected entities in Madagascar.

	ANOVA <sup>a</sup>								
Mod	el	Sum of squares	df	Mean square	F	Sig.			
1	Regression	42.006	5	8.401	105.095	.000 <sup>b</sup>			
	Residual	15.668	196	.080					
	Total	57.673	201						

Table 20. ANOVA of the Regression

a. Dependent Variable: Effectiveness of Internal Control

 b. Predictors: (Constant), Monitoring of Control, Information and Communication System, Risk Assessment, Control Environment, Control Activities
 Source: SPSS result, 2018

According to Pearson correlation in Table 18 which discussed earlier in this section, the control environment of the IOUC's selected entities in Madagascar have a relationship of their risk assessment, information and communication system, control activities and monitoring of controls. Thus, according to the findings, the first null hypothesis was rejected.

**RQ2.** Does the control environment of the four IOUC's selected entities in Madagascar have an effect on their internal control effectiveness? The null hypothesis related to that second RQ is that  $H_{0_2}$ : Control environment has no effect on the internal control effectiveness of the four IOUC's selected entities in Madagascar.

According to Table 21, control environment is not significant to the regression model of the study (p > .01). Thus, control environment of the IOUC's selected entities in Madagascar has a relationship of their internal control effectiveness but doesn't have effect on it. Accordingly, the second null hypothesis was accepted.

	Coefficients <sup>a</sup>								
		Unstandardized coefficients		Standardized coefficients					
Mo	odel	В	Std. Error	Beta	t	Sig.			
1	(Constant)	298	.191		-1.561	.120			
	Control Environment	.036	.074	.030	.489	.625			
	Risk Assessment	.244	.050	.247	4.864	.000			
	Information and Communication System	.305	.059	.322	5.172	.000			
	Control Activities	.246	.069	.220	3.597	.000			
	Monitoring Control	.240	.051	.217	4.743	.000			

Table 21. Coefficients of the Regression

a. Dependent Variable: Effectiveness of Internal Control *Source: SPSS result, 2018* 

**RQ3.** Does the risk assessment of the four IOUC's selected entities in Madagascar have an effect on their internal control effectiveness? The null hypothesis related to that third RQ is that  $H_{0_3}$ : Risk assessment has no effect on the internal control effectiveness of the four IOUC's selected entities in Madagascar.

Table 21 shows also that risk assessment is significant to the regression model (p < .01). That is, risk assessment contributes on the internal control effectiveness of the IOUC's selected entities in Madagascar. Accordingly, here, risk assessment has an effect on the effectiveness of internal control which means that the third null hypothesis was rejected.

**RQ4.** Do the information and communication system of the four IOUC's selected entities in Madagascar have an effect on their internal control effectiveness? The fourth null hypothesis related to the fourth RQ is that  $H_{0_4}$ : Information and communication system have no effect on the internal control effectiveness of the four IOUC's selected entities in Madagascar.

Table 21 shows also how information and communication system are significant to the regression model (p < .01). That indication indicates that information and communication system contribute also on the internal control effectiveness of the IOUC's selected entities in Madagascar. Here again, information and communication system have an effect on the effectiveness of internal control which means that the fourth null hypothesis was rejected too.

**RQ5.** Do the control activities of the four IOUC's selected entities in Madagascar have an impact on their internal control effectiveness? The null hypothesis related to the RQ number five is that  $H_{0_5}$ : Control activities have no effect on the internal control effectiveness of the four IOUC's selected entities in Madagascar.

Looking at Table 21, control activities are significant too to the regression model of the study (p < .01). That means that control activities contribute too on the effectiveness of internal control of the four IOUC's selected entities in Madagascar. Thus, control activities have an effect on their internal control effectiveness the reason why the fifth null hypothesis was rejected too.

**RQ6.** Does the monitoring of controls of the four IOUC's selected entities in Madagascar have an effect on their internal control effectiveness? The last null hypothesis related to the last RQ is that  $H_{0_6}$ : Monitoring of controls has no effect on the internal control effectiveness of the four IOUC's selected entities in Madagascar.

To answer the last question, Table 21 shows how monitoring of controls is very significant to the regression model of the present study (p < .01). That indicates that monitoring of controls contributes too on the effectiveness of internal control of the four IOUC's selected entities in Madagascar which means that monitoring of

controls has an effect too on their internal control effectiveness. Thus, accordingly, the last null hypothesis was rejected too.

#### Multiple Regression Model for the Study

The six RQs have been answered by yes except the second RQ. After rejecting the first, third, fourth and fifth null hypotheses of the study and accepting the second null hypothesis, the very important point is now to know the multiple regression model which relate the independent variables to the dependent variable of the study. The multiple regression model shows how each independent variable contributes to the dependent variable.

According to Table 21, the multiple regression model for this study is as follows.

#### EIC = .247 RA + .322 IC + .220 CA + 217 MC

Where

EIC = Effectiveness of internal control;

RA = Risk assessment;

IC = Information and communication system;

CA = Control activities; and

MC = Monitoring of control.

This model is statistically significant according to Table 20. According to this model, the information and communication system contribute the most followed by the risk assessment, the control activities and the monitoring of control. Accordingly, the determinants of the internal control effectiveness of the four IOUC's selected entities in Madagascar by order of impact are information and communication system, risk assessment, control activities and monitoring of control.

#### CHAPTER 5

#### SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter represents the summary of the major findings of the study and indicates recommendations that can help in improvement of internal control system of the four IOUC's selected entities in Madagascar.

#### Summary

Each entity need to have effective internal control as it ensures the achievement of the entity's objectives. The management must set up strong and effective internal control system for the growth and development of the entity. The target population of the study was 310 and 202 out of 310 questionnaires shared was collected by the researcher which gave the response rate of 65.16%. It means that 34.84% was uncollected. It was revealed that male gender represented the most and the majority of the respondents was from the age group 30-39 years. Looking at the year of service of the respondents, the majority was from the 5-9 years of service and many of the respondents has bachelor's degree and above which is very important for the internal control system as commitment to competence is one of the key for having effective control environment. It was revealed also that the frontline staff represented the most for the present research.

For the data analysis, it is always important to have valid, reliable and consistent data when conducting a study. For the present research, the Cronbach's alpha for data collected for 51 elements of internal control was 0.948. It was revealed

accordingly that the survey instrument used for the study was valid and reliable and the data were consistent.

As indicated in literature (Patterson and Smith, 2007 ; Wah, 2011 ; Akani and Akaninyene, 2015 ; Lemi, 2015 ; Garrison et al., 2015), many are the benefit of having effective internal control. The financial statements are reliable. There is efficiency of the entity's operations. Risks and fraudulent acts and other illegal actions and conducts are eliminated or diminished. The entity can grow and be developed. Especially for the case of not-for-profit, donors can continue their contributions and contribute more. It was proved that for the four IOUC's selected entities that all components of internal control are good and effective except the risk assessment and the monitoring of control.

The overall evaluation of the internal control system of IOUC's selected entities shown that it tends to be ineffective. As indicated in literature (Messier et al., 2008 ; Whittington & Pany, 2008 ; Edmonds et al., 2008 ; GC, 2011 ; Harrison Jr. et al., 2013 ; Garrison et al., 2015), there is no perfect internal control system as it has limitations. The internal control system of those entities is subject to improvement, even though the management tried to do their best in all areas.

The study was conducted to explore the determinants of the internal control effectiveness of the four IOUC's selected entities in Madagascar which were the FMC, UAZ, SMA and MEA. The RQs and hypotheses of the present study focused on the relationship between the control environment and the other four components of internal control and the effect of those five components on the effectiveness of internal control of the IOUC's selected entities. As the effectiveness of internal control was the dependent variable of the study and the control environment, risk assessment, information and communication system, control activities and monitoring

of control were the independent variables, it was revealed in the study that the control environment of the IOUC's selected entities in Madagascar has a relationship to risk assessment, information and communication system, control activities and monitoring of controls but has no effect on their internal control effectiveness. Thus, just the four other components of internal control of the four IOUC's selected entities in Madagascar have an effect on their internal control effectiveness. Contrary to what Lemi (2015) argued that the determinants of the effectiveness of internal control are the five components of internal control mentioned above, it was revealed according to the findings at the significance level of .01, for the present study, that the determinants of the internal control effectiveness of the IOUC's selected entities by order of impact are the information and communication system, risk assessment, control activities and monitoring of control, which means that control environment was not part of the determinants of the effectiveness of internal control.

It was revealed that the information and communication system contribute the most in the effectiveness of internal control of those selected entities while the control environment contribute the less. Between these two components, there is the significant contribution of the risk assessment, the control activities and the monitoring of control. Therefore, the multiple regression model of this study is: "EIC = .247 RA + .322 IC + .220 CA + 217 MC".

#### Conclusion

It was revealed that the effectiveness of internal control of the four IOUC's selected entities is not very strong as it tends to be ineffective due to the deficiencies in the risk assessment and monitoring of control. As the effectiveness of internal control should be assessed and monitored in an ongoing process, contrary to that, the study revealed that there is no internal audit unit within the IOUC's selected entities to ensure that responsibility. It was revealed too that the internal control system of those entities has room for improvement especially in the area of risk assessment and monitoring of control.

As the present research was conducted to explore the determinants of the effectiveness of internal control of the four IOUC's selected entities in Madagascar, based on the findings, there is no doubt to conclude that the determinants of the effectiveness of internal control of the four IOUC's selected entities are the risk assessment, information and communication system, control activities and monitoring of control, where the information and communication system contributes more than the other determinants.

#### Recommendations

Based on the findings of the study, the following recommendations are given to assist the management of the IOUC's selected entities in improving the effectiveness of their internal control as they are the first responsible of assuring the well-functioning of it.

First of all, as the stewardship theory is more appropriate for the Adventist Church's ethics, the management should increase the degree of trust to the entity's employees.

Motivated employee works effectively and that is one objective of internal control. Therefore, the researcher recommends that the management should find out the source of motivation of the entity employees and put a serious attention on it.

Then, there should be periodical budget control to guide the management for the financial aspect of the entity.

The internal control of the entity should be consistent and in spite of the fact that, the study found the internal control of those entities to not be effective enough, the researcher recommends to the management that:

For the control environment

- For the well-functioning of the internal control system, they must ensure that there is regular training within the workplace for all employees.
- They should find out what philosophy and operating style are appropriate for the entity's environment.
- The organizational structure or chart of the entity should be clearly defined appropriately to the entity's size and function and communicated to the employee.
- They must put emphasis to the human resource, so indeed policies and practices of the entity related to that should be formalized clearly and communicated to each employee.

For the risk assessment

- They should inform the employees about the risk assessment process of the entity and help them to understand it for its well-functioning.
- They should set up a clear strategy for identifying, evaluating and correcting all risks.

- They should set up also a clear strategy for ensuring that all risks are assessed on an ongoing or continuous basis.

For the information and communication system

- Each employee must receive job description in order to clearly define their authority and responsibility.

For the control activities

- There should be monthly report of each employee to the supervisor of what they achieved and not.
- There should be periodical review of each employee performance with a regular and appropriate way for a quality purpose.
- There should be adequate physical security for cash and other assets subject to theft for each department or section of the entity.
- There should be an ongoing system for checking the integrity of each employee.

For the monitoring of control

- They must establish an internal audit unit to monitor the control of the entity on a continuous basis.

## **Suggestions for Future Research**

Future researchers should explore the effect of the categories of control on the effectiveness of internal control of the IOUC's entities in Madagascar as the need of an effective internal control is very primordial for them.

APPENDIXES

## APPENDIX A

## **Data Collection Instrument**

## **Questionnaire (English Version)**

Dear Participant,

I am Herimamy Rafaliniony, a student at the Adventist University of Africa (AUA). As part of the requirements of completing my Master Degree of Business Administration at AUA, I am conducting a study that seeks to explore the determinants of effective internal controls in IOUC's institutions.

You are being asked to participate in this study because your current position in your workplace will enable you to make meaningful contributions. Your views and opinion are very important to this study and therefore I am inviting you to participate voluntarily in this research study by answering the questions frankly and honestly. Please note that your responses will be confidential, your identity will not be revealed and all the responses received will be summarized.

Thank you for taking the time to assist me in my educational endeavors. The data collected will provide useful information regarding effective internal controls to help IOUC. I greatly appreciate your support for my study.

Sincerely

Herimamy Rafaliniony

Tel: +261 34 38 268 33 and Email: <u>rafalinionyh@aua.ac.ke</u> / <u>rafalinionyh@zurcher.edu.mg</u>

## **SECTION A: PERSONNAL INFORMATION**

<u>Instruction</u>: Please kindly tick the box that clearly expresses your view about the question.

1) Gender:	a) Male		b) Female				
2) Age:	a) 19 or less	;	b) 20 - 29	c) 30 - 39	d) 40 - 49	e)50 or more	
3) Year of se	ervice:		a) 1 - 4	b) 5 - 9	c) 10 - 14	d) 15 or more	,
4) Education	nal level:						
a) Diploma			b) Bachelor's degr	ree	c) Master's deg	gree	
d) Doctoral			e) Other:				
5) Which de	partment do	you bel	ong?				
a) Administra	ation		b) Head of departi	ment	c) Accounting	and Finance	
d) Office Sta	ff		e) Production		f) Other		

## **SECTION B: INTERNAL CONTROL COMPONENTS**

<u>Instruction</u>: Think of your workplace practices and your work experience and rate the following statements using the rating scale below. Please, circle the appropriate number against the statements as defined below:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 =Not Sure
- 4 = Agree
- 5 = Strongly Agree.

CON	NTROL ENVIRONMENT					
1	Clear codes of conduct and/or ethics policies of the entity exist and communicated to me	1	2	3	4	5
2	I understand the conflict of interest statement of the entity and I accept it.	1	2	3	4	5
3	I am encouraged to comply with the denominational working policies and the applicable law of the country.	1	2	3	4	5
4	My function and my responsibility are appropriate to my competency and my qualification.	1	2	3	4	5
5	My workload permits me to effectively do my tasks.	1	2	3	4	5

6	My background was checked before the entity's management hired or assigned me to my current job.	1	2	3	4	5
7	I received adequate training to perform effectively my tasks.	1	2	3	4	5
8	For the well-functioning of the internal control system, regular training exists within the workplace for all employees.	1	2	3	4	5
9	In my point of view, the management philosophy and operating style are appropriate for the entity's environment.	1	2	3	4	5
10	The organizational structure or chart of the entity is clearly defined.	1	2	3	4	5
11	The organizational structure of the entity is appropriate for the entity's size and function.	1	2	3	4	5
12	My role and my responsibility are assigned clearly	1	2	3	4	5
13	Human resource policies and practices of the entity are formalized and communicated to me.	1	2	3	4	5

RISI	K ASSESMENT					
1	I understand what risk is all about.	1	2	3	4	5
2	I understand the risk assessment process of my department.	1	2	3	4	5
3	In my department, there is clear strategy used to identify risks.	1	2	3	4	5
4	In my department, all identified risks are appropriately evaluated.	1	2	3	4	5
5	In my department, all identified and evaluated risks are corrected in an appropriate way.	1	2	3	4	5
6	In my department, there is follow-up action used to confirm if identified risks are eliminated.	1	2	3	4	5
7	My department's environment promotes the well- functioning of the risk assessment process.	1	2	3	4	5
8	Risks and other issues within my department are assessed on an ongoing basis.	1	2	3	4	5

INF	ORMATION AND COMMUNICATION					
1	The entity's objectives and goals are communicated to me.	1	2	3	4	5
2	My department's objectives are communicated to me.	1	2	3	4	5
3	Job description was given to me in order to clearly communicate my authority and my responsibility.	1	2	3	4	5
4	There are established channels of communication for me to receive and share important information concerning my job.	1	2	3	4	5
5	All instruction and information I need to effectively perform my tasks are communicated to me in an appropriate way.	1	2	3	4	5
6	There is regular meeting when all relevant general information is communicated to all employee.	1	2	3	4	5
7	I am encouraged to report suspected improprieties to my supervisor or to the management.	1	2	3	4	5
8	My personal account is communicated periodically in the appropriate way.	1	2	3	4	5

CON	NTROL ACTIVITIES					
1	I report monthly to my supervisor what I achieved during the period.	1	2	3	4	5
2	There is a periodical review of my performance with a regular and appropriate way.	1	2	3	4	5
3	My performance is reviewed based on the objectives I should reach.	1	2	3	4	5
4	There is stock manager in my workplace to manage all kind of stock of the entity.	1	2	3	4	5
5	There is security guard in the entity where I'm working.	1	2	3	4	5
6	Adequate physical security for cash and other assets subject to theft is provided in my department.	1	2	3	4	5
7	There is segregation of duties in my department.	1	2	3	4	5
8	Every financial transaction I did is approved in advance by the appropriate authorized persons.	1	2	3	4	5
9	My work is checked and verified by others to ensure integrity.	1	2	3	4	5

MO	MONITORING OF CONTROL						
1	Routinely evaluation of the internal control effectiveness exists in my department.	1	2	3	4	5	
2	There are on-going processes to monitor if the internal control is effectively operating in my department.	1	2	3	4	5	
3	There are on-going processes to monitor if any adjustments in the internal control system are necessary in my department.	1	2	3	4	5	
4	There is internal auditor in the entity where I'm working.	1	2	3	4	5	

EFF	ECTIVENESS OF INTERNAL CONTROL					
1	The control activity in my department addresses the established control objective.	1	2	3	4	5
2	The response to an identified risk in my department is simultaneous to the risk event or occurrence.	1	2	3	4	5
3	The person who is the responsible of the control in my department is clearly established.	1	2	3	4	5
4	All controls in my department fully check any previous controls for completion and correction purpose.	1	2	3	4	5
5	The control process of my department is adaptable to all types of activity without impacting negatively anything.	1	2	3	4	5
6	The control process of my department allows any subsequent checking or re-performance of any operation at any time.	1	2	3	4	5
7	At any time, all resources needed to perform the control of my department were available for all levels of activity.	1	2	3	4	5
8	All control process in my department follow the predefined control procedures.	1	2	3	4	5
9	The assessment process used in my department addresses all risks.	1	2	3	4	5

## **SECTION C: OPEN-ENDED QUESTIONS**

Instruction: Please write your answer for the questions.

1. What are the general ideas about the internal control that are implemented by the entity?

2. What do you consider are the areas of internal control that need improvement in the entity?

## THANK YOU VERY MUCH AND MAY GOD BLESS YOU.

## **Questionnaire (Malagasy Version)**

## Ry namana,

Izaho Herimamy Rafaliniony, mpianatra ao amin'ny Oniversite Advantista any Afrika (AUA), araka ny fepetra amin'ny fanatanterahana ny fianarako hahazoana ny maripahaizana "Master Degree of Business Administration", dia manao fikarohana aho izay mikasika ny "fifehezana sy fanaraha-maso anatiny" "Internal Control" eo anivon'ny IOUC.

Miangavy an-tanan-droa anao ary mba handray anjara mavitrika amin'io fikarohana io satria ny toerana misy anao sy ny andraikitra sahaninao eo amin'ny toeram-piasanao dia tena manan-danja tokoa izay mahatonga ny fanampianao ho sarobidy indrindra. Ny fomba fijerinao sy ny hevitrao dia tena zava-dehibe amin'ity fikarohana ity, noho izany dia manasa anao aho mba handray anjara an-tsitrapo amin'izany amin'ny alalan'ny famaliana am-pahatsorana sy am-pahamarinana ny fanontaniana rehetra voatanisa eto ambany. Marihina fa tazonina ho tsiambaratelo ny mombamomba anao sy ny valinteny rehetra izay omenao.

Misaotra anao nanolotra fotoana hanampiana ahy amin'izao ezaka izao. Izao no natao dia mba hanampiana ny IOUC hanana fifehezana sy fanaraha-maso anatiny tsara sy mahomby. Tena mankasitraka ny amin'ny fanohananao ny fianarana ataoko.

Ny mpianatra

Herimamy Rafaliniony

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## FIZARANA A – NY MOMBAMOMBA AHY

<u>*Tari-dàlana:*</u> Mariho ny boaty izay milaza ny marina momba anao.

1) Sokajy:	a) Lahy	b) Vavy					
2) Taona:	a) 19 no midina	b) 20 - 29		c) 30 - 39	d) 40 - 49	e)50 no miakatra	
3) Taona nia	isana:	a) 1 - 4		b) 5 - 9	c) 10 - 14	d) 15 no miakatra	
4) Fianarana	a nataoko:						
a) BACC		b) Mari-pa	haizana I	Licence	c) Mari-pahaizan	a Master	
d) Doctoral		e) Hafa:					
5) Departem	anta misy ahy						
a) Fitantanan	-draharaha	b) Filohan <sup>7</sup>	'ny depar	temanta	c) Ara-bola		
d) Mpiasa bir	rao	e) Famoka	rana		f) Hafa		

# FIZARANA B : FIFEHEZANA SY FANARAHA-MASO ANATINY « INTERNAL CONTROL »

**<u>Tari-dàlana</u>**: Diniho ny fomba fiasa ao amin'ny toeram-piasanao ka omeo naoty ireto fanambarana manaraka ireto amin'ny alalan'ny fomba fitsarana eo ambany. Farito boribory ny valinteninao.

- 1 = tena tsy ekeko mihitsy
- 2 = tsy ekeko
- 3 = tsy azoko antoka
- 4 = ekeko

Г

• 5 = tena ekeko

TONTOLON'NY ASA (CONTROL ENVIRONMENT)									
1	Misy ary ampahafantarina ahy ny fitsipi-pitondran- tena mazava sy / na fitsipika momba ny etika eto amin'ny orinasa.	1	2	3	4	5			
2	Mazava amiko ary ekeko ny fanambarana mahakasika ny « conflit d'intérêt » eto amin'ny orinasa.	1	2	3	4	5			
3	Ampirisihina aho hanaraka ny lalàna mifehy ny asa ; na eo anivon'ny fiangonana izany na eo anivon'ny firenena.	1	2	3	4	5			

4	Ny andraikitro dia mifanaraka amin'ny fahaizako sy ny fahalalako.	1	2	3	4	5	
5	Ireo andraikitra sahaniko dia mamela ahy hanao sy hamita amin'ny fomba mahomby ny fanatanterahana ny asako.	1	2	3	4	5	
6	Nofantarina ny fahaiza-manao nananako sy ny mombamomba ahy nialohan'ny nanomezan'ny tompon'andraikitra asa sy andraikitra ahy.	1 2 3 4					
7	Nahazo fampiofanana ampy aho mba hanatanterahako tsara ny asako.	1	2	3	4	5	
8	Mba hampandeha tsara ny fifehezana sy ny fanaraha-maso anatiny, dia misy fiofanana tsy tapaka eo amin'ny toeram-piasana ho an'ny mpiasa rehetra.	1	2	3	4	5	
9	Araka ny hevitro dia mety ary mifanaraka amin'ny tontolon'ny orinasa ny filozofia sy ny fomba fiasan'ny mpitantan'asa.	1	2	3	4	5	
10	Mazava tsara ny rindrandamina "organizational structure" eo anivon'ny orinasa.	1	2	3	4	5	
11	Ny rindrandamina misy eo anivon'ny orinasa dia mifanaraka tsara amin'ny sokajiny sy ny asa sahaniny.	1	2	3	4	5	
12	Ny andraikitro sy ny asako dia voatendry mazava tsara.	1 2 3 4				5	
13	Ny lalàna mihefy ny « hoenti-manana eo amin'ny lafiny olona » « human ressource » eo anivon'ny orinasa dia misy ary nambara mazava tsara tamiko.	1	2	4	5		

## TOMBANA NY AMIN'NY FAHADISOANA METY HITRANGA EO AMIN'NY ASA (RISK ASSESMENT)

AIVI	IN NY ASA (KISK ASSESWIENT)					
1	Fantatro ny atao hoe fahadisoana na "risk" eo amin'ny asako.	1	2	4	5	
2	Fantatro ny fizotran'ny fanombanana ny fahadisoana mety hitranga eo anivon'ny departemanta misy ahy.	1 2 3 4				
3	Ao amin'ny departemanta misy ahy dia misy tetika mazava ampiasaina hamantarana ny fahadisoana mety hitranga.	1	4	5		
4	Ao amin'ny departemanta misy ahy, ny fahadisoana mitranga dia voavinavina sy voatombana.	1	2	3	4	5
5	Ao amin'ny departemanta misy ahy, ny fahadisoana voaporofo rehetra dia voahitsy amin'ny fomba mety.	1	2	3	4	5
6	Ao amin'ny departemanta misy ahy dia misy fanaraha-maso atao mba hanamarinana fa voafongotra ny fahadisoana nitranga.	1	2	3	4	5

7	Eo amin'ny tontolon'ny departemanta misy ahy dia mangarahara ny fizotran'ny fanombanana ny fahadisoana mety hitranga.	1	2	3	4	5
8	Amin'ny fomba mitohy ny fanombanana ny fahadisoana sy ny olana hafa mety hitranga ao amin'ny departemanta misy ahy.	1	2	3	4	5

# FAMPAHALALANA SY SERASERA/FIFANDRAISANA (INFORMATION AND COMMUNICATION)

ANL	AND COMMUNICATION)									
1	Ampahalalana ahy ireo tanjon'ny orinasa.	1	2	4	5					
2	Ampahafantarina ahy ny tanjon'ny departemanta misy ahy.	1	5							
3	Nomena ahy ny "soritroritry ny asako" "job description" mba hahafantarako ny fahefako sy ny andraikitro.	1 2 3 4								
4	Eo amin'ny lafiny fifandraisana dia misy làlana ahafahako mandray sy mampita vaovao mahakasika ny asako.	1	4	5						
5	Ampitaina amiko amin'ny fomba mety ny soridàlana sy ny vaovao rehetra ilaiko mba hampandeha ny asako.	1	2	3	4	5				
6	Misy fivoriana ara-potoana eo anivon'ny orinasa mba hampitana amin'ny mpiasa ny vaovao manandanja rehetra.	1	2	3	4	5				
7	Ampirisihina aho mba hitatitra amin'ny lehibeko na amin'ny mpitantan'asa ny zavatra mampiahiahy sy tsy mazava misy.	1 2 3 4				5				
8	Omena ahy ara-potoana sy amin'ny fomba tsara ny "toe-bolako manokana" "personal account".	1	2	4	5					

NY	NY ASA FIFEHEZANA SY FANARAHA-MASO (CONTROL ACTIVITIES)									
1	Manao tatitra am-bava na an-tsoratra isam-bolana amin'ny lehibeko aho ny amin'ny asa izay vita.	1 2 3 4 5								
2	Tombanana ara-potoana ny "endri-pahombiazana" "performance" ananako kanefa atao amin'ny fomba ara-dàlana sy mety izany.	1	2	3	4	5				
3	Izany fanombanana izany dia miankina amin'ny tanjona izay tokony hotratrariko.	1	2	3	4	5				
4	Misy "mpiandraikitra entana" "stock manager" mitantana ny fivoaka sy ny fiditry ny entan'ny orinasa rehetra.	1	2	3	4	5				

5	Ahitana "mpiandraiki-draharaha momban'ny fandriampahalemana" "security guard" ao amin'ny orinasa izay iasako.	1	2	3	4	5
6	Voaro tsara ny vola sy fananan'ny orinasa mora angalarina ao amin'ny departemanta misy ahy.	3	4	5		
7	Hita ao amin'ny departemanta misy ahy ny "fisarahan'ny andraikitra" "segregation of duties".	1	2	3	4	5
8	Eken'ny tompon'andraikitra mialoha ny famoaham-bola sy ny fampidiram-bola rehetra ataoko.	1	2	3	4	5
9	Mba hisian'ny fahatokiana dia misy olona hafa manara-maso ny asako.	1	2	3	4	5

-	FIJERENA AKAIKY NY FIFEHEZANA SY NY FANARAHA-MASO (MONITORING OF CONTROL)									
1	"Mandeha ho azy" "routinely" ny fanombanana ny fahombiazan'ny fifehezana sy fanaraha-maso anatiny eo anivon'ny departemanta misy ahy.	1	2	3	4	5				
2	Misy dingana arahina mba hamantarana raha toa ka mandeha amin'ny tokony ho izy ny fifehezana sy fanaraha-maso anatiny eo anivon'ny departemanta misy ahy.	1	2	3	4	5				
3	Misy dingana arahina koa hanitsiana raha misy tokony hahitsy ny fifehezana sy fanaraha-maso anatiny eo anivon'ny departemanta misy ahy.	1	2	3	4	5				
4	Manana "mpanamarin-kaonty anatiny" "internal auditor" ny toerana iasako.	1	2	3	4	5				

-	FAHOMBIAZAN'NY FIFEHEZANA SY FANAR ATINY (INTERNAL CONTROL EFFECTIVENES		-MAS	<b>SO</b>		
1	Ny asa fanaraha-maso sy fifehezana ao amin'ny departemanta misy ahy dia mifanaraka amin'ny tanjona izay napetraka.	1	2	3	4	5
2	Ny fahadisoana mitranga eo amin'ny departemanta misy ahy dia voahitsy eo noho eo fa tsy angatahana andro.	1	2	3	4	5
3	Voatendry sy voatolotra mazava ny olona tompon'andraikitra amin'ny fifehezana sy fanaraha- maso ao amin'ny departemanta misy ahy.	1	2	3	4	5
4	Ny fanaraha-maso sy fifehezana rehetra ao anivon'ny departemanta misy ahy dia mameno sy mijery ny fanaraha-maso sy fifehezana efa nisy teo aloha ho amin'ny tanjanon'ny fanitsiana sy fahatanterahana.	1	2	3	4	5

5	Ny lamim-panaraha-maso sy fifehezana misy eo anivon'ny departemanta misy ahy dia azo ampiharina amin'ny karazan'asa rehetra ao anatiny fa tsy miovaova.	1	2	3	4	5
6	Ny lamim-panaraha-maso sy fifehezana eo anivon'ny departemanta misy ahy dia ahafahana manara-maso sy mifehy ny asa rehetra amin'ny fotoana rehetra.	1	4	5		
7	Ny zavatra rehetra ilaina hanatanterahana ny fanaraha-maso sy fifehezana ny asa rehetra eo anivon'ny departemanta misy ahy dia "azo ampiasaina avy hatrany" "available" amin'ny fotoana rehetra.	1	2	3	4	5
8	Ny lamim-panaraha-maso sy fifehezana eo anivon'ny departemanta misy ahy dia manaraka ny lamim-panaraha-maso sy fifehezana efa napetraka.	1	2	3	4	5
9	Ny fanombanana eo anivon'ny departemanta misy ahy dia mijery ny karazam-pahadisoana rehetra miseho.	1	4	5		

## FIZARANA D: FANONTANIANA OMENA VALINY

*<u>Tari-dàlana</u>*: Soraty ny valinteninao amin'ireto fanontaniana ireto.

1. Amin'ny ankapobeny, inona ny hevitrao mahakasika ny "fifehezana sy fanaraha-

maso anatiny" "internal control" izay ampiharin'ny orinasa iasanao?

2. Inona amin'izany no hitanao sy heverinao fa mila fanatsarana?

Misaotra betsaka ary mankasitraka indrindra. Hitahy anao anie Andriamanitra !!!!!

#### Interviews

#### **Interview Questions for the Management**

- Do you collectively take decisions or they are controlled by one dominant individual?
- 2. Do audit and other control systems exist to periodically test for compliance with codes of conduct or policies?
- 3. To what extent are employees encouraged to report suspected improprieties to management or the governing committee of the entity?
- 4. To what extent are clear objectives for all key activities of the entity documented and communicated to employees in order to provide effective direction on risk assessment and control issues?
- 5. Do you consider and appropriately address technology issues of the entity?
- 6. Do you discuss and appropriately consider control issues when planning an activity?
- 7. Do you receive timely, relevant and reliable information for decision-making?
- 8. Does the board of directors of the entities control effectively the entity?
- 9. Do you compare actual result with the voted budget at regular intervals?
- 10. Do you consider the audit findings and recommendations and take adequate actions?

#### **Interview Questions for the Finance Department**

- 1. To what extent are your accounting procedures clearly segregated?
- 2. To what extent are all financial transactions reviewed by the key managers?
- 3. Do processes exist for independent verification of transaction to ensure integrity?
- 4. Does a system exit in your department to ensure that duties are rotated periodically?

- 5. Do the location and use of all equipment of the entity get tracked correctly?
- 6. Is adequate physical security for cash provided in the entity?
- 7. Can you explain the system of reconciliation of the entity?
- 8. Does the manager or employee other than the preparer review and approve the reconciliations?
- 9. Does the employee independent of recording and processing transactions prepare the entity financial statement?
- 10. To what extent are financial statements prepared at frequent or regular intervals?

### **Interview Questions for Internal Auditors**

- 1. Do you assess periodically the internal control effectiveness of the entity?
  - a. If yes, do you report your findings and recommendations to the management?
- 2. Do on-going processes exist within the entity to monitor if policies, processes and activities related to internal control and risk management are effectively applied?

### **Interview Questions for GCAS Team**

- 1. Do GCAS audit all entities within IOUC? (If "No" please explain the reasons)
- 2. Do GCAS assess internal control of the IOUC's entities during the audit?
- 3. What are the criteria's of assessing the internal control effectiveness of the IOUC's entities?
- 4. Do you think all areas of internal control system are well designed and operating in the IOUC's entities?
- 5. Do you believe the internal control met the required objective of the IOUC's entities?

- 6. What is your idea about the effectiveness of the internal control of the IOUC's entities?
- 7. Where is/are the areas of the internal control you suggest an improvement in the IOUC's entities?

# APPENDIX B

# Statistical Outputs

# Demographic Characteristics of the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	149	73.8	73.8	73.8
	Female	53	26.2	26.2	100.0
_	Total	202	100.0	100.0	

		Frequency	Percent	Valid	Cumulative
				Percent	Percent
Valid	19 or less	1	.5	.5	.5
	20-29	56	27.7	27.7	28.2
	Years				
	30-39	92	45.5	45.5	73.8
	Years				
	40-49	32	15.8	15.8	89.6
	Years				
	50 or more	21	10.4	10.4	100.0
	Total	202	100.0	100.0	

		Frequency	Percent	Valid	Cumulative
				percent	percent
Valid	1-4 Years	62	30.7	30.7	30.7
	5-9 Years	67	33.2	33.2	63.9
	10-14	45	22.3	22.3	86.1
	Years				
	15 or more	28	13.9	13.9	100.0
	Total	202	100.0	100.0	

		Frequency	Percent	Valid percent	Cumulative percent
V-1:1	D'1	25	10.4	1	1
Valid	Diploma	25	12.4	12.4	12.4
	Bachelor's	96	47.5	47.5	59.9
	Degree				
	Master's	37	18.3	18.3	78.2
	Degree				
	Doctoral	12	5.9	5.9	84.2
	Other	32	15.8	15.8	100.0
	Total	202	100.0	100.0	

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Administration	8	4.0	4.0	4.0
	Head of department	23	11.4	11.4	15.3
	Accounting and Finance	10	5.0	5.0	20.3
	Office Staff	25	12.4	12.4	32.7
	Frontline Staff	95	47.0	47.0	79.7
	Other	41	20.3	20.3	100.0
	Total	202	100.0	100.0	

# **Descriptive Statistics**

	N	Min	Max	Mean	Std.
CONTROL ENVIRONMENT					Deviation
CE01 - Clear codes of conduct	202	2	5	3.9802	.70507
and/or ethics policies of the entity exist and communicated to me					
CE02 - I understand the conflict of	202	1	~	4 1000	77701
interest statement of the entity and I	202	1	5	4.1089	.77781
accept it.					
CE03 - I am encouraged to comply	202	2	5	4.1584	.66516
with the denominational working					
policies and the applicable law of					
the country.					
CE04 - My function and my	202	1	5	4.1485	.71774
responsibility are appropriate to my					
competency and my qualification.					
CE05 - My workload permits me to	202	2	5	4.1832	.72696
effectively do my tasks.					

CE06 - My background was	202	1	5	4.1089	.83339
checked before the entity's					
management hired or assigned me					
to my current job.					
CE07 - I received adequate training	202	1	5	3.8465	.82932
to perform effectively my tasks.					
CE08 - For the well-functioning of	202	1	5	3.5396	.95204
the internal control system, regular					
training exists within the workplace					
for all employees.					
CE09 - In my point of view, the	202	1	5	3.6634	.84379
management philosophy and					
operating style are appropriate for					
the entity's environment.					
CE10 - The organizational structure	202	1	5	3.8069	.83895
or chart of the entity is clearly		_	-		
defined.					
CE11 - The organizational structure	202	1	5	3.7921	.83239
of the entity is appropriate for the	_0_	-	C	017721	100207
entity's size and function.					
CE12 - My role and my	202	1	5	4.1188	.79535
responsibility are assigned clearly	202	1	5	1.1100	.17555
CE13 - Human resource policies	202	1	5	3.6584	.82084
and practices of the entity are	202	1	5	5.0504	.02004
formalized and communicated to					
me.					
Overall mean of the control	202	2.23	4.92	3.9318	.44160
environment	202	2.23	7.74	5.7510	.++100
Valid N (listwise)	202				
	202				

	Ν	Min	Max	Mean	Std.
RISK ASSESSMENT					Deviation
RA01 - I understand what risk is all about.	202	2	5	4.0594	.67392
RA02 - I understand the risk assessment process of my department.	202	2	5	3.6782	.74006
RA03 - In my department, there is clear strategy used to identify risks.	202	1	5	3.4752	.88766
RA04 - In my department, all identified risks are appropriately evaluated.	202	1	5	3.4950	.83008
RA05 - In my department, all identified and evaluated risks are corrected in an appropriate way.	202	1	5	3.6139	.81002
RA06 - In my department, there is follow-up action used to confirm if identified risks are eliminated.	202	1	5	3.5446	.85838

RA07 - My department's environment promotes the well- functioning of the risk assessment	202	1	5	3.4802	.78677
process. RA08 - Risks and other issues within my department are assessed on an	202	1	5	3.4455	.82227
ongoing basis. Overall mean of risk assessment Valid N (listwise)	202 202	1.88	4.88	3.5990	.54216

INFORMATION AND	Ν	Min	Max	Mean	Std.
COMMUNICATION SYSTEM					Deviation
IC01 - The entity's objectives and	202	1	5	4.1634	.75181
goals are communicated to me.					
IC02 - My department's objectives	202	1	5	4.1188	.75029
are communicated to me.					
IC03 - Job description was given to	202	1	5	3.8416	1.02441
me in order to clearly communicate					
my authority and my responsibility.					
IC04 - There are established	202	1	5	3.8465	.83530
channels of communication for me					
to receive and share important					
information concerning my job.					
IC05 - All instruction and	202	1	5	3.8218	.82131
information I need to effectively					
perform my tasks are communicated					
to me in an appropriate way.					
IC06 - There is regular meeting	202	1	5	3.9950	.84933
when all relevant general					
information is communicated to all					
employee.					
IC07 - I am encouraged to report	202	1	5	3.9455	.89887
suspected improprieties to my					
supervisor or to the management.					
IC08 - My personal account is	202	1	5	3.8713	.84245
communicated periodically in the					
appropriate way.					
Overall mean of information and	202	2	5	3.9505	.56567
communication system.					
Valid N (listwise)	202				

	Ν	Min	Max	Mean	Std.
CONTROL ACTIVITIES					Deviation
CA01 - I report monthly to my supervisor what I achieved during the period.	202	1	5	3.5842	1.00513

CA02 - There is a periodical review	202	1	5	3.5347	.87034
of my performance with a regular					
and appropriate way.					
CA03 - My performance is	202	1	5	3.8119	.80685
reviewed based on the objectives I					
should reach.					
CA04 - There is stock manager in	202	1	5	4.2376	.70037
my workplace to manage all kind of					
stock of the entity.					
CA05 - There is security guard in	202	1	5	4.2327	1.02230
the entity where I'm working.					
CA06 - Adequate physical security	202	1	5	3.8515	.89093
for cash and other assets subject to					
theft is provided in my department.					
CA07 - There is segregation of	202	1	5	3.8069	.73122
duties in my department.					
CA08 - Every financial transaction	202	1	5	3.9950	.96453
I did is approved in advance by the					
appropriate authorized persons.					
CA09 - My work is checked and	202	1	5	3.7327	.87975
verified by others to ensure					
integrity.					
Overall mean of control activities.	202	2.33	4.89	3.8652	.47838
Valid N (listwise)	202				
					-

	Ν	Min	Max	Mean	Std.
MONITORING OF CONTROL					Deviation
MC01 - Routinely evaluation of the internal control effectiveness exists in my department.	202	1	5	3.6733	.62468
MC02 - There are on-going processes to monitor if the internal control is effectively operating in my department.	202	1	5	3.6683	.69389
MC03 - There are on-going processes to monitor if any adjustments in the internal control system are necessary in my department.	202	1	5	3.6832	.75219
MC04 - There is internal auditor in the entity where I'm working.	202	1	3	1.8020	.56463
Overall mean of monitoring of control	202	1	4.50	3.2067	.48386
Valid N (listwise)	202				

EFFECTIVENESS OF	Ν	Min	Max	Mean	Std.
INTERAL CONTROL					Deviation
EIC01 - The control activity in my	202	1	5	3.8069	.70348
department addresses the					
established control objective.					
EIC02 - The response to an	202	1	5	3.4752	.87638
identified risk in my department is					
simultaneous to the risk event or					
occurrence.	202	1	<i>_</i>	0 7000	07000
EIC03 - The person who is the responsible of the control in my	202	1	5	3.7822	.87080
department is clearly established.					
EIC04 - All controls in my	202	1	5	3.6386	.67882
department fully check any previous	202	1	5	5.0580	.07882
controls for completion and					
correction purpose.					
EIC05 - The control process of my	202	1	5	3.5941	.74217
department is adaptable to all types	202	-	U	010711	.,
of activity without impacting					
negatively anything.					
EIC06 - The control process of my	202	1	5	3.7079	.69026
department allows any subsequent					
checking or re-performance of any					
operation at any time.					
EIC07 - At any time, all resources	202	1	5	3.5396	.72682
needed to perform the control of my					
department were available for all					
levels of activity.	• • •	_	_	<b>a i a i i i i i</b>	
EIC08 - All control process in my	202	1	5	3.6584	.73108
department follow the predefined control procedures.					
EIC09 - The assessment process	202	1	5	2 ( 195	76625
used in my department addresses all	202	1	5	3.6485	.76635
risks.					
Overall mean of effectiveness of	202	1.22	4.89	3.6502	.53566
internal control.	202	1.44	т.07	5.0502	.55500
Valid N (listwise)	202				

### APPENDIX C

#### Letter

3/28/2018

Gmail - 16.258 MEMOIRE MBA AUA - DEMANDE



Herimamy Rafaliniony <herimamyrafaliniony@gmail.com>

#### 16.258 MEMOIRE MBA AUA - DEMANDE

 Sahondra Eliane Razafimiarana <sornauroosah@iou.adventist.org>
 18 novembre 2016 à 10:45

 À : Herimamy Rafaliniony <herimamyrafaliniony@gmail.com>
 Cc : Pr WELSEY ORIEUX <orieuxw@iou.adventist.org>, Rolland RALANDISON <r\_rolland@iou.adventist.org>

472/16/IOUC/SG

#### NOTIFICATION ADCOM

UNION DE FEDERATION DES EGLISES ADVENTISTES DE L'OCEAN INDIEN

17 NOVEMBRE 2016

Destinataire : Herimamy RAFALINIONY

Copies :	Wesley ORIEUX, Rolland RALANDISON
Carrier and Construction of the	

Sujet: MEMOIRE MBA AUA – DEMANDE

Cher Frère,

Lors de sa réunion, l'ADCOM de l'Union a pris la décision suivante :

#### 16.258 MEMOIRE MBA AUA - DEMANDE

Considérant la demande de Herimamy RAFALINIONY pour son mémoire de fin d'étude (MBA Accounting) sur le contrôle interne au niveau de l'Union,

VOTE d'approuver la demande qui lui permettra d'avoir accès à tous les documents à caractère non confidentiel pour ses recherches.

Fraternellement,

Sahondra Razafimiarana Somauroo Administrative Secretary + 261 32 02 186 81 /+ 261 33 14 781 99

https://mail.google.com/mail/u/2/?ui=2&ik=d44d8a6c75&jsver=TKgsgjvy78Q.fr.&view=pt&msg=158766565242d099&q=somauroosah%40iou.adventist.org&qs=true&s

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### CURRICULUM VITAE

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### **Personal Statement**

Called in the teaching ministry, I really like sharing my knowledge to others. As a simple servant of God, serving others with my competencies and skills makes my happiness and joy. I am currently lecturer of accounting subjects in the business department at Zurcher Adventist University.

"I can do all things through Christ who strengthens me" Philippians 4:13. (NKJV)

### Education

2018	MBA (in process)	Adventist University of Africa, Advent Hill, Ongata Rongai, Nairobi, Kenya
2012	<b>BBA</b> with Highest Distinction	Zurcher Adventist University, Vohitsoa, Antsoatany, Antsirabe II, Madagascar

## Experiences

2013 – Now	Lecturer in Business Department	Zurcher Adventist University, Vohitsoa, Antsoatany, Antsirabe II, Madagascar
2015	Chief Accountant	Zurcher Adventist University, Vohitsoa, Antsoatany, Antsirabe II, Madagascar
2013	Accountant	Zurcher Adventist University, Vohitsoa, Antsoatany, Antsirabe II, Madagascar
2012	Assistant Registrar	Zurcher Adventist University, Vohitsoa, Antsoatany, Antsirabe II, Madagascar

# Skills and competencies

- Accounting Software: SunPlus System, SAGE
- Microsoft Office: Word, Excel, PowerPoint, Publisher
- Statistical Software: SPSS
- Languages: Malagasy, French, English

# Hobbies and interests

- Sports
- Music
- Reading
- Games