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GRADUATE STUDIES DEPARTMENT OF BUSINESS AND ACCOUNTING (MBA)

**TOPIC: INVESTIGATING THE EFFECT OF IMPLEMENTING EFFECTIVE  
MANAGEMENT CONTROL SYSTEM: THE CASE STUDY OF THE  
PHARMACEUTICAL INDUSTRY IN LESOTHO**

By

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**Statement of originality**

This is to certify that to the best of my knowledge the content of this dissertation is my own work. This dissertation has not been submitted for any degree or other purposes. I, the undersigned certify that this research is my work and was carried out while a student at Botho University as partial fulfilment of my Masters in Business Administration (MBA) Degree. I affirm that any ideas of other people have been fully acknowledged using the Harvard referencing style.

Signature: Motiki Francis Beleme

Date: 10<sup>th</sup> May 2021

## **Dedication**

I dedicate my dissertation work to my family. A special feeling of gratitude to my loving wife Makhanya Beleme who has spent sleepless nights with me while I was working on this study and whose words of encouragement and push for perseverance still lingers in my mind.

I also dedicate this dissertation to my church family who have supported me throughout their prayers. I will always appreciate all they have done, especially Chief Arch Bishop with his words of encouragement.

Finally, I dedicate this work and give special thanks to my supervisor Dr. Stephen Maponga and colleagues who have been very supportive and encouraging.

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**Abbreviations**

MCS – Management Control System

MC – Management Control

SRS – Simple Random Sampling

PMs – Pharmaceutical Managers

PCs – Pharmaceutical Companies

DCS – Diagnostic Control System

ICS – Interactive control system

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## **Definition of terms**

**Pharmaceutical industry** - an industry which is highly innovative driven since its history as it shown contribution to the well-being of humans with the provision of new medicines in addressing different ailments

**Management control system** - the process whereby management ensures that resources (resources either be human, financial and/or physical resources) are effectively and efficiently attained and utilized in accomplishing the objectives of the company.

**Management control** – Is a process whereby the management control subordinates to execute strategies of the organization

**Diagnostic Control Systems** – are regarded as formal feedback systems which have been used in monitoring company results and correcting deviations from present performance standards

**Interactive Control Systems** – are regarded as formal systems which top management use to involve themselves at the uniform intervals of time and personally in subordinate's decision making.

## **Abstract**

The main focus of this research study is the study of the effect of effective management control system (MCS) the case study of Lesotho pharmaceutical companies. The major objectives of the research study were to establish ways of implementing successful MCS in pharmaceutical companies of Lesotho especially efficient control of human resources, and to evaluate the effectiveness of the execution of MCS looking at the pharmaceutical industries in Lesotho. For this purpose, the questionnaire was designed and a survey of thirty (30) pharmaceutical companies was undertaken. Only twenty-seven (27) pharmaceutical companies responded the questionnaires. Needless to say, results showed that only twelve pharmaceutical companies do not have MCS in place. Besides, there is no correlation between effective MCS and number of pharmaceutical companies' operational years. Also, there is weak correlation between effective MCS and experience of employees. It has been determined that pharmaceutical companies of Lesotho taking 30 PCs whereby 27 PCs responded the questionnaires, 12 PCs have MCS in place but 15 PCs have not implemented MCS. On the other hand, PCs are the ones that were determined to have effective MCS and also, we found that they do perform better than the PCs that do not have MCS in place and/or that have partial MCS in place. Furthermore, PCs that have effective MCS realizes more profits with happier clientele due to the happy employees which has been managed, coordinated, controlled and monitored well and employees knowing their responsibilities.

## **Chapter 1 – Background of the study**

### **1.1. Introduction**

Pharmaceutical industry has been defined as an industry which is highly innovative driven since its history as it showed contribution to the well-being of humans with the provision of new medicines in addressing different ailments (Sambandan and Hernandez Raja, 2015). While King'ori (2010) regarded pharmaceutical industry as firms that deal with the development production and marketing of drugs which have been licensed in order to be used as medicines in treating, preventing and alleviating symptoms of diseases. It is also an essential industry which provides medicine to health sectors either be private or public. Lacking control over employees may lead to not meeting the desired goals and objectives of the company. While others sit and hide behind others since there are no job description detailing what their day to day activities are. However, lack of involvement of employees in management decisions, no planning and setting up of desired goals after financial year ended, and lack of motivation to employees may lead to failure in meeting the desired strategies, goals and objectives of the company. According to Quagraine and Asiedu-Appiah (2019) not engaging employees in the process of decision-making builds tension between management and staff since employees are regarded as the fuel which assists in running the engine of the company. Quagraine and Asiedu-Appiah (2019) further added that involving employees in decision-making is the best management tool which would impact positively the fortunes of any firm that make practice of it.

As employees are taken as the heart of any company (Nurun Nabi and Dip TM, 2017) lack of motivation, lack of involvement in the management decision-making may impact the organization negatively. As a result, implementation of proper management control could be beneficial both to the organization and to the employees. Nurun Nabi and Dip TM (2017) reported further that their results indicated that employee's effectiveness and efficiency improve extremely for attaining firms' goals when employees are motivated positively. In addition, motivating employees in the company usually brings more performance to the top management that aim at reaching the goals of the company, (Robescu and Iancu, 2016). Nevertheless, Raymond (2016) reported that in companies where is no effective implementation of management control system (MCS) there seems a dysfunctional behaviour amongst the workers and occurrences of such behaviour involves actual data manipulation either for performance improvement or avoiding objectionable results while actual data is

reported. In addition, system reward utilized for the performance improvement of employees are the causes of these tendencies, (Raymond, 2016). Therefore, effective MCS is essential not only for the company gaining competitive advantage but for maximization of profits as well.

Management control (MC) has been defined as a function which according to Otley (1994) links strategic planning with operational control as stated by Šljivić, Skorup and Vukadinović (2015) in their article. They further indicated that management control has been regarded as a solution to the challenges of management of a large, decentralized organizations. Besides, top management use MC for the coordination and control of subordinate work amongst the department within the same organization. According to Alkhafaji, Talab and Hammood (2018) management control system (MCS) has been defined by Anthony (1965) as the process whereby management ensures that resources (resources either be human, financial and/or physical resources) are effectively and efficiently attained and utilized in accomplishing the objectives of the company. Needless to say, proper implementation of management control system in a pharmaceutical company would be essential as Dutta (2011) stated that control assists in the human resources guidance effectively in accomplishing the goals of the company.

### **1.1.1 Motivation**

According to van der Kolk, van Veen-Dirks and ter Bogt (2019) companies may make use of various kinds of control for motivating their workers. As a result, motivation of employees as a management control system drove me to investigate the effectiveness of management control system in pharmaceutical industry. Gomez Ruiz (2013) stated that researchers highlighted that management control system has two roles “which are the decision-facilitating role and the decision-influencing role.” Gomez Ruiz (2013) further added that the decision-facilitating role gives provision of information in order to plan and decision making which means employees abilities improvement in making advantageous decision for the organization, and the decision-influencing role is in relation to the motivation of individual. Therefore, I found it necessary to carry out this research in order to see whether there is proper utilization of human resources effectively and efficiently in the best interest of pharmaceutical industry and to achieve the desired objectives of the company as well. Nonetheless, not leaving behind whether there is satisfaction of the employees for them to perform at their best while motivated and satisfied.

## **1.2. Problem Statement**

Executing management control system (MCS) is challenging to many industries, since many research studies reported lack of involvement of employees in the decision-making and lack of motivation and recognition due to weak management control systems (Quagraine and Asiedu-Appiah, 2019) especially utilization of human resources. Top management become concerned to poor performance and resigning of employees, however, they are not aware what the cause of such actions is. Therefore, poor or weak implementation of MCS may lead to the industry losing not only valuable, skilled, experienced and knowledgeable staff since they are not feeling to be part of that company/organization, but competitive advantage and market as well. Singh and Twalo (2015) reported that when expectations of the staff are not met, employees may behave inappropriately on their jobs hence derailing the performance in achieving the goals of the company.

This study owns in answering what are the effects of implementing effective MCS looking at the pharmaceutical industry in Lesotho. As poor MCS execution results in loss of valuable staff and competitive advantage of the company to the rivals, it is essential to study the effect of effective implementation of MCS in a pharmaceutical company.

## **1.3. Research objectives**

1. To establish ways of implementing successful management control system in a pharmaceutical industry in Lesotho
2. To evaluate the effectiveness of the execution of management control system looking at the pharmaceutical industry in Lesotho.

## **1.4. Research questions**

1. What are the suitable ways of applying successful management control systems in a pharmaceutical industry?
2. What is the effectiveness of the execution of management control system looking at the pharmaceutical industry in Lesotho?

## **1.5. Significance of the study**

Effective realization of MCS in a pharmaceutical company will not be beneficial only to the company top management but also to the employees as van der Kolk, van Veen-Dirks and ter Bogt (2019) reported that MCS serves as an important role in the motivation of employees to maximize their performance. According to Alkhafaji, Talab and Hammood (2018) MCS is

vital as it assists top management in formulating strategies, specifying the required operational actions in the execution of the MCS strategies, clarification of expected mutual, identifying priorities betterment of operations, and also setting desired targets which will have influence on performance currently and subsequently. To the employees, with proper MCS accomplishment they get motivated with rewards and recognition based on performance and involvement of employees in key decisions and they will have their views and suggestions being taken into considerations. As a result, both top managers and employees will be happy hence working hard for achieving the desired planned strategies and goals of the company.

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

This study will cover pharmaceutical companies such as retailers, wholesalers and manufacturers having MCS in place, in the process, and/or having no MCS in place. Also, the study will encompass top management of pharmaceutical companies, subordinates and other employees working in the company who will be given questioner to answer. The focus will be more on the human resources as they are the ones using other resources either be financial or physical and making sure they are utilized in such a way that goals, objectives, plans and strategies will be achieved.

### **1.7. Limitation of the study**

The study will be limited to MCS especially regarding the coordination, monitoring and control of human resources in order to attain high productivity in the pharmaceutical industry as well as high profit. Monitoring and control of human resources also involves motivation and recognition of employees so that they can be able to work happily hence maximizing production. More so, involvement of employees in the decision making will make employees feel appreciated in the company hence becomes easy for them to be coordinated, managed, monitored and controlled as they will push themselves in seeing that goals, objectives, plans and strategies of the company are implemented effectively and efficiently.

### **1.8. Delimitation of the study**

This study will not cover other MCS components which are financial and physical resources. Nonetheless, will cover only human resources, their coordination, management, monitoring and control. Furthermore, this study will not cover animal pharmaceuticals industry but only human pharmaceutical industries.

## **Chapter 2 – Literature Review**

### **2.1. Introduction**

This chapter entails the introductory of pharmaceutical industry and management control systems. The theoretical framework, conceptual framework and related literature review of management control systems are also covered.

#### **2.1.1. Pharmaceutical industry**

According to Kitsis (2011) pharmaceutical industry has been defined as a company that develops, produces and sells drugs. Also, Teramae *et al.* (2020) stated that pharmaceutical industries are highly regulated just because their products are directly life related products and most of them. Therefore, in a pharmaceutical industry in order for processes, employees, capital, and physical resources to be utilized as expected. Introduction or use of MCS is regarded as a main aspect of management which makes best coordination, management, monitoring and control of financial, physical and human resources so that a company can achieve high productivity and profits.

#### **2.1.2. Management control**

It is important to know what management control (MC) is. MC has been defined by many researchers as the process that the company works hard to attain the desired outcomes, (Carenys, 2010; Šljivić, Skorup and Vukadinović, 2015). Simons (1994, 2000) as stated by Bostan *et al.* (2018) regarded MC as process whereby the management control subordinates to execute strategies of the organization. The role of MC is to ensure that financial viability of an organization and country economic stability is maintained, (Bostan *et al.*, 2018).

#### **2.1.3. Management Control System (MCS)**

According to Armesh, Salarzehi and Kord (2010) MCS has been defined as a system that collect and utilizes information for the evaluation of performance of various resources of the organization such as human, financial, physical including the organization as a whole in accordance with the strategies of the organization. However, Ballesteros Orozco (2017) defined MCS as formalized procedures and systems which make usage of information in maintaining or altering patterns in an organizational activity. Beuren and Teixeira (2014) stated that Otley (1999) considered MCS as controls which are characterised with the usage in the business management, covers performance measurement including reward systems when pre-determined levels have been achieved. MCS are utilized by management in order to

keep track of performance of the company and controlling behaviour of employees (Lundell and Forzelius, 2017). Lundell and Forzelius (2017) further indicated that executing MCS could be easier for the management of the company and also could be helpful tool in avoiding company failure, and in attaining growth and success.

According to Du and Salameh (2019) described four main types of control in MCS as ‘results control, action control, personal control and cultural control.’ Results control has been defined as an indirect type of control as it focuses on actions or decisions of not explicitly and is helpful in precisely defining how a worker must act in a complex circumstance, while action control is a direct form of control and is focusing on encouraging action and behaviour appropriately and preventing an inappropriate behaviour or action by workers (Du and Salameh, 2019). Du and Salameh (2019) reported that personnel and cultural controls as softer and more qualitative in nature, and control is implemented largely through self and/or mutual monitoring.

According to Lundell and Forzelius (2017), Simons(2000) introduced four control levers, as a belief systems, boundary systems, diagnostic control systems and interactive control systems. Belief systems and interactive control systems inspire workers to invent in new ideas and increase opportunity capacity while boundary systems and diagnostic control system decrease the opportunity capacity and inventions to keep the company focused, (Lundell and Forzelius, 2017). The benefits of belief systems assist the company by inspiring workers to get better off inertia and to make contribution to the strategic goal of growth, boundary system produce boundaries that limit employees’ freedom thus increasing trustworthiness in process. Hence, contributing to the control strategic goal, however, diagnostic control system assist focus on maximization of productivity by measuring the performance hence contributing to efficiency strategic goal, and lastly, interactive control system can make contribution to the innovation strategic goal because it encourages observation and learning.

Carenys (2010) reported that Anthony (1965) defined management control as the process that assures that resources are gained and utilized effectively and efficiently in accomplishing the companies’ objectives. While Šljivić, Skorup and Vukadinović (2015) defined management control as the procedure that companies’ aim to gain the desired outcomes or performances. They further added that management control is regarded as a representation method for the management of firm’s performances. There are control systems that could be implemented in order to see that the objectives of the company will be implemented in a formal way. Hence

control system according to Dutta (2011, p.3) has been defined as “on set of formal and informal systems to assist the management in moving forward to release organizational goals.” Dutta further added that control systems assist workers as they guide them towards the effective accomplishments of the companies’ goals.

Hence there comes management control system which is defined by Simons (1995) as a formal information-based routines and procedures that managers utilize for the alteration or maintenance patterns in a firm activities. Bredmar (2011) indicated that management control systems assist companies in increasing the likelihood that workers make decisions and also takes actions that are in best interest of the companies.

According to Bostan *et al.* (2018) management control ensures the financial feasible of the organization and economic stability in a country. Löfstål (2008) suggested that formal management control systems involve an exceptional fine issue for medium-sized growing companies and their managers like performance measurement systems, budgeting and reporting and project costing system. Nonetheless, Davila (2005) indicated that management control systems have different categories which are financial planning, financial evaluation, human resource planning, human resource evaluation, strategic planning, product development, sales/market and partnerships.

From Simons’ (1995a, 1995b, 2000) as stated by Peljhan (2007); Du and Salameh (2019) in his framework described four levels of control which assist the company implements its strategy successfully which are belief systems, boundary systems, diagnostic control system and interactive control systems. Lisi (2015); Arjaliès and Mundy (2013) noted that the potential of the four levels of control are fully realized when they are mobilized together.

#### **2.1.3.1. Belief System**

According to Albertini (2019); Ahrens and Chapman (2004) belief systems are utilized by the management in defining, communicating, and reinforcing the core values, purpose and direction of the company. In addition, belief systems are used in enhancing the managerial perception of ethics within the company and insist in applying moral principles during business decision making (López-Gamero, Claver-Cortés and Molina-Azorín, 2008; Albertini, 2019).

#### **2.1.3.2. Boundary Systems**

Top management introduces boundary systems for the establishment of specific limits and rules which should be respected, (Elisabeth, 2018). Also, Arjalies and Mundy (2013) reported that top management utilize strategic boundaries in communicating with workers activities that are regarded acceptable or off-limits for ensuring that company resources are not wasted.

#### **2.1.3.3. Diagnostic Control System (DCS)**

According to Albertini (2019) DCS are regarded as formal feedback systems which have been used in monitoring company results and correcting deviations from present performance standards.

#### **2.1.3.4. Interactive control system (ICS)**

ICS are regarded as formal systems according to Albertini (2019) which top management use to involve themselves at the uniform intervals of time and personally in subordinate's decision making. As stated by Bedford (2015); Shapiro (2016) ICS is used by top management for the facilitation of the debate concerning the underlying action plans which drive the firm's activities and also obtaining access local knowledge about the strategic uncertainty which can be utilized in development of strategic plans.

Sljivic, Skorup and Vukadinovic (2015, p.40) defined management control as the "process in which organizations strives to achieve the planned or desired results." There are several factors or control that company utilizes in order to improve their current management control such as reward and compensation controls, administrative controls, and financial reporting of information.

#### **2.1.3.5. Reward and compensation control**

As outlined by Malmi and Brown (2008); Lundell and Forzelius (2017) reward and compensation is the other type of control which focus on the motivation and increase in performance of each employee and achieving compatibility between company goals and goals of employees. Having no performance evaluation and reward systems, employees would not be motivated. As a result, company could implement such control systems of incentives and training courses so that employees could also feel as part of the pharmaceutical company.

### **2.1.3.6. Administrative controls**

Lundell and Forzelius (2017) reported that Malmi and Brown (2008) claimed that administrative controls have a directive behavior throughout the company as it organizes individuals, monitors behavior and also specify accountability and specifies the way jobs should or should not be carried. And have the following controls which are organization structure, governance structure, and policies and procedures.

#### **a) Organization Structure**

According to Lundell and Forzelius (2017) organizational structure relates the way individuals have to be organized in the company. Organization structure can be regarded as an organizational chart from which specifies who will do what and how that can be accomplished (Waldron, Vsanthakumar and Arulraj, 1997). Needless to say, it is necessary for pharmaceutical companies to implement a better organization structure to show delegation of command and the responsibilities of each employee.

#### **b) Governance Structure**

Lundell and Forzelius (2017, p.21) noted that governance structure can be seen as “the formal ways of authority and accountability. It also includes systems to make sure that the different functions coordinate their activities in both horizontal and vertical manner.”

#### **c) Policies and Procedures**

According to Malmi and Brown (2008); Lundell and Forzelius (2017) policies and procedures are regarded to as the bureaucratic way in which behavior in the company is postulated and also involves standard operating procedure and practices, rules and policies, job description for instance. In the company where there are no formal job descriptions employees would do the work the way they think it was necessary even if it is not in the benefit of the company or also employees could be abused as they will not know their responsibilities in the company.

As management control system has been defined as practices for the persuasion of behavior according to Flamholtz, Das and Tsui (1985) as reported by Alkhafaji, Talab and Hammood (2018), has cost and benefits for the implementation of formal management control systems. While Henri (2006) defined management control system as formalized procedures and systems which utilize information for maintaining or altering patterns in a company level activity.

As outlined by Merchant and Otley (2006) MCS purpose is the provision of information which is useful for managerial decision-making, planning, monitoring and evaluation of company activities for the alteration of employee behavior. Marginson (2002) on the other hand pointed that MCS give provision of strategic direction to the innovative efforts of organizations and also resource for innovative activities. As stated by Kombate (2016) a formal management control system involves standard operating procedure rules and budgeting systems, hence quality of such business will be maintained. Furthermore, as firms deal with various categories of workers who may not be motivated in order to attain set of plans and objectives, has become authoritative that control measures are filled in business plans and activities so that it gains the desired performance, (Kombate, 2017). Moreover, Simons *et al.* (2000); Widener (2007); Acquaah (2013) stated that management accounting researchers have argued that one of the ways in which firms can revive themselves continually in order to survive and succeed in these complex and uncertain environments is better in the understanding of the role of management control systems in the creation of competitive advantage. As a result, it will be necessary for the pharmaceutical companies to implement MCS in order to simplify things for the management and also to remain competitive. According to Davila et al (2010) as stated by Lundell and Forzelius (2017) management control systems in start-ups can also help in the facilitation of more growth and improving communication and control throughout the company.

## **2.2.Theoretical Framework**

Management control systems are the set of procedures and accounting tools which management utilizes in ensuring that organizational goals are attained, (Abdallah, Farghaly and Sebaay, 2019). MCSs involves formal controls such as reward systems and informal controls like cultural controls, (Abdallah, Farghaly and Sebaay, 2019). On the other hand, Otley (1999) as reported by Cambalikova and Misun (2017) outlined MCS as providing information which have been set to assist managers to perform their tasks and helping companies on the development and maintenance of feasible patterns of behaviour. Lopez-Valeiras, Gomez-Conde and Lunkes (2018) reported that researchers indicated that MCS may encourage ‘promotion and coordination cost containment or participation.’

Tessier and Otley (2012); Berdud, Cabasés and Nieto (2016) stated that MCS may provide contribution to the guidance of workers behaviour by giving them information relative to the negative consequences of behaviours which are intolerable to the company. Suffice to say, it

is essential for the company to stipulate the responsibilities of the employees in a contract and the expectations that employees will signed and be kept by both parties. Once there is a job description becomes easy for workers to know their duties so that they can perform as expected and failure to those terms and conditions outlined in the contract consumers will face the negative consequences. Besides, having MCS in place also motivates, controls and monitor to do their work regarding the company objectives. In addition, companies using rewards controls encourage employees to perform as they know that the company recognizes their efforts.

On the other hand, engagement of employees in decision making assist management to select better strategies amongst those got from the staff hence improving MCS. Since as the employees see that their suggestions are taken into consideration, they maximize their performance without being monitored and pushed to their tasks. Employees could also do their duties perfectly even without the presence of their supervisors or managers. Therefore, implementing effective MCS in pharmaceutical company is essential so that employees can be motivated and encouraged hence increasing their performance hence increasing competitive advantage of the company.

### 2.3. Conceptual Framework

Lundell and Forzeli (2017) provided the conceptual framework of a proper implementation of management control system as provided below.



Figure 1. Conceptual framework structure for effective management control system

## **2.4.Related Literature**

According to Willert, Israelsen, Rohde, and Toldbod (2017) MCS involves two functions which are control and planning activities, and encouragement of workers to more creative and solutions for problems. Sgardea, Sabău and Vuță (2011) regarded management controls, in pharmaceutical industry as involving organization plan, methods, and procedures acquired by management in ensuring that goals of the company are met. Sgardea, Sabău and Vuță (2011) added further that management controls involves planning, organizing, directing, and control processes of program operations. “An important principle of contemporary management control theories is that the employee should be stimulated to participate in decision-making. In order be able to participate and increase efficiency in the organization, information must be made available to the subordinate,” (Rana, Sharma and Rana, 2017, p.5). More researches focused on other MCS not much on human resource allocation, motivation, control, monitoring and involvement but more on the financial resources. However, it is important to focus on employees as they are the one who are responsible for managing, controlling, and monitoring other resources to meet the specific objectives, goals and strategies of the pharmaceutical company set.

## **Chapter 3 – Methodology**

### **3.1. Introduction**

This chapter outlines the methods that has been used for sampling, sampling techniques, collecting data and how the data has been analysed and interpreted.

### **3.2. Research orientation**

This research study focused on investigating the effect of executing effective management control system looking at the pharmaceutical companies in Lesotho. Therefore, the study answered how well or bad the MCS has been implemented in the pharmaceutical companies and determined the effect of proper accomplishment of MCS looking at the Lesotho pharmaceutical companies.

### **3.3. Research design**

The study focused on the effects of implementing effective MCS in pharmaceutical companies in Lesotho. Qualitative type of data was collected to determine the effectiveness of MCS in these pharmaceutical industries. The purpose of this study is establishing and evaluating of the effectiveness of MCS in pharmaceutical companies. One week and two days was taken collecting data from thirty different pharmaceutical companies and a week in analysing the data. Needless to say, pharmaceutical companies were selected randomly using simple random sampling. Data has been analysed using descriptive analysis.

### 3.4. Conceptual framework

The structure below was the conceptual framework structure for effective MCS implementation for a pharmaceutical industry.

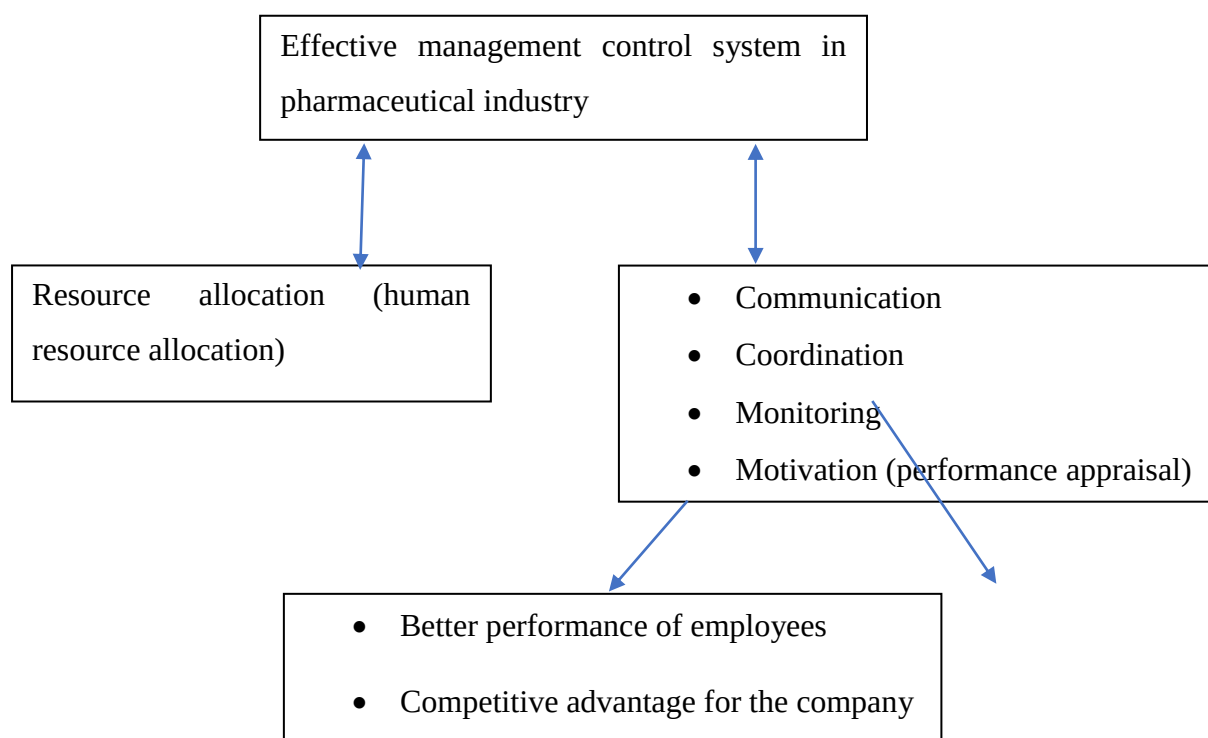


*Figure 2. A proposed conceptual framework for management control system in pharmaceutical framework*

### 3.5. Sampling

The sampling covered thirty pharmaceutical companies in Lesotho both public and private companies. Pharmaceutical companies were selected randomly within the country whereby every company had equal chance of being selected.

### 3.6. Population

Population is basically pharmaceutical companies in Lesotho whereby certain companies had been chosen randomly from the ten districts of Lesotho.

### 3.7. Sampling Technique

The technique that was used is simple random sampling whereby every pharmaceutical company had an equal chance to be chosen. In addition, simple random sampling without replacement and it was an unbiased technique, (Mitra and Pathak, 1984). According to Taherdoost (2016) simple random sampling means that every case of the population has an equal likelihood of selection in sample. Simple random sampling is selected on the basis that is understood easily (Taherdoost, 2016). Suffice to say, Gabler and Häder (2016) stated simple random sampling (SRS) without replacement as follows

The sample mean  $\bar{Y} = \frac{1}{n} \sum_{k=1}^n Y_k$  is a random variable with

$$E_{\text{srs}}(\bar{Y}) = \bar{Y} \text{ with } \bar{Y} = \frac{1}{N} \sum_{k=1}^N Y_k$$

$$\text{Var}_{\text{srs}}(\bar{Y}) = \frac{s^2}{n} \left(1 - \frac{n}{N}\right) \text{ with } S^2 = \frac{1}{N-1} \sum_{k=1}^N (Y_k - \bar{Y})^2$$

An unbiased estimator  $V_{\text{srs}}$  for the variance of the sample means is given by  $V_{\text{srs}} = \frac{s^2}{n} \left(1 - \frac{n}{N}\right)$  with

$$S^2 = \frac{1}{n-1} \sum_{k=1}^n (Y_k - \bar{Y})^2 \text{ as the (corrected) sample variance}$$

Therefore, for large samples comprising n units

$$\left[ \bar{Y} - 1.96 \sqrt{\frac{s^2}{n} \left(1 - \frac{n}{N}\right)} ; \bar{Y} + 1.96 \sqrt{\frac{s^2}{n} \left(1 - \frac{n}{N}\right)} \right]$$

### 3.8. Sampling criteria

Thirty companies that were selected were then provided with questionnaires to be answered in a company. Therefore, questionnaires were based on the MCS in a pharmaceutical which found out whether there is effective implementation of MCS and if not, what ways of effective implementation of MCS are.

### **3.9. Sampling frame**

Thirty pharmaceutical companies that with any years in operation were selected to represent the whole population on the basis of random sampling since every company have equal chance of being selected on the basis of years it has.

### **3.10. Data collection procedure**

The questionnaires were designed allowing for both employees and management to answer. Suffice to say, the questionnaires were distributed via email addresses due to covid-19 restrictions that were present in Lesotho and three companies via calls to the random chosen pharmaceutical companies for employees as well as top management to answer.

### **3.11. Data analysis procedures**

After the collection of data from thirty different pharmaceutical companies that have been selected randomly within Lesotho, mean and standard deviation of the mean had been calculated. With the mean depicted an average number of the pharmaceutical companies that implemented MCS, therefore, determined the effect of execution of effective MCS. The ways of implementing effective MCS had also been established from those pharmaceutical companies that implemented it properly.

#### **3.11.1. Mean**

According to Manikandan (2011) mean is described as an “average” and is calculated as the additions of all values in a data set and divided by the observations number or sample size. That is mean  $\bar{X} = \frac{\sum x}{n}$  where  $\sum$  is the summation,  $x$  is the individual value and  $n$  is the observations number or sample size.

#### **3.11.2. Standard deviation**

According to Barde and Barde (2012) standard deviation (SD) is described as the dispersion of individual observation with regard to the mean and is denoted as  $s$ .

$$s = \sqrt{\frac{\sum (x - \bar{X})^2}{n - 1}}$$

Where  $s$  – sample SD,  $x$  – individual value,  $\bar{X}$  – sample mean and  $n$  – sample size

### **3.12. Credibility, transferability and dependability**

I believe that the staff I interviewed provided accurate information for the study which I believe is credible for the data I collected. Suffice to say, I believe knowledgeable staff provided information which had been useful in fulfilling the purpose of the research study.

### **3.13. Ethical considerations**

According to Arifin (2018) noted that human subjects protection is essential for any research study with the application of suitable ethical principles. Suffice to say, in the study, to make sure that ethical issues are addressed and ethical principles are obeyed and fulfilled a letter asking for the permission to carry out the research was written to the Ministry of Health Lesotho outlining that the participations will be just voluntarily including that confidentiality and anonymity of the participants was preserved by not disclosing their names and identities in the collection of data, in data analysis and in the reporting of the research study findings like Arifin (2018) reported. My letter was accompanied with the Botho University letter.

### **3.14. Voluntary participation and consent**

The purpose of the study and how the data was collected were explained to the participants. They had time to ask questions and clarity concerning the research. Their participation had been voluntary and discontinuing from the study while in progress would not affect their work and any relations.

### **3.15. Confidentiality and anonymity**

The privacy and confidentiality of the participants had been kept. Data that was collected had been de-identified to preserve the anonymity of the participants.

### **3.16. Chapter Summary**

Methodology chapter stipulated the procedures on how the study was carried throughout the research, how data was collected, and ways in which data was analysed including the voluntary participation of the participants. This chapter also outlines the ethical considerations and that the confidentiality and anonymity of the participants was observed in order to protect the participants.

## **Chapter 4 - Analysis of Data and Interpretation of Results**

### **4.1. Introduction**

The purpose of chapter 4 is to give the data analysis information about the response of pharmaceutical respondents in relation to management control system as well as the interpretation of results. According to Kawulich (2004) data analysis is defined as the reduction process of huge amount of gathered data to make sense out of that collected data. Therefore, the data collected is been categorized, analyzed and interpreted in this chapter.

MCS focuses more on the monitoring, control and management of human resources in order to assist in the proper usage of financial resources as well as physical resources so that the profitability of the company can be obtained. Also, the chapter discusses the analysis of data from sixty (60) questionnaires that is thirty (30) from management and thirty (30) from staff from the ten districts of Lesotho. As a result, this chapter covers how the data used in this study was collected. Presentation of results of the data analysis and findings of the research are also covered in this chapter. The purpose of this study was to see whether there is proper utilization of human resources effectively and efficiently in the best interest of the pharmaceutical company and also to achieve the desired aims of the company.

The objectives of the research study were to;

- Establish ways of implementing successful MCS in pharmaceutical companies.
- Evaluate the effectiveness of the execution of MCS looking at the pharmaceutical companies in Lesotho.

Questionnaires were given to 30 pharmaceutical companies in the ten districts of Lesotho. After participants signing consent forms outlining their willingness to participate in the study,

then pharmaceutical companies' participants completed the questionnaires. The original signed consent forms were given to the participants while the copies were kept in my files.

Thirty managers and thirty employees completed the questionnaires whereby two participants completed the questionnaires that is one from the management and one from the staff members. The data was collected between 02 February 2021 and 16 February 2021.

The data from the questionnaires were statistically analyzed using Microsoft Excel. The findings are discussed according to the four subtopics of chapter 4 namely, description analysis, demographic information, qualitative analysis and quantitative analysis as well.

#### **4.2. Descriptive Analysis**

The study is based on the primary data collected from 30 pharmacies in Lesotho selected randomly. The outcome variable of the study is having an effective management control system in the company. According to Flannelly, Flannelly and Jankowski (2014) variable is the most used word in research studies and is defined as something which is taking on various values; it is something which varies. In addition to that variable is divided into two groups namely independent variable and dependent variable. "Independent variable is a variable that is presumed to have an effect on another variable (a dependent variable). A dependent variable is quite simply, dependent, in that it depends in some sense, on an independent variable," (Flannelly, Flannelly and Jankowski, 2014, p.162). Needless to say, in this research study the independent variables were number of factors that may have an influence in the implementation of effective management control system. These independent variables were composed of operational years of a company, number of years an employee have worked for a company and district where the pharmaceutical company is. Some variables were recorded to suit the purpose of the study. Data was analyzed using Microsoft Excel.

Total pharmacies selected for questionnaire interview were 30. Respondents who agreed to answer the questionnaire were 27 (90%) while 3 (10%) did not answer the questionnaire. Twelve (12) (44%) of pharmaceutical managers responded to Questionnaire have management control system while 15 (56%) do not have management control system. 11 (91.7%) of respondents who implemented management control system showed that it is profitable to the company while 1 (8.3%) showed that MCS is not profitable. This has been illustrated by Figure 3 below.

#### 4.2.1. Having MCS in place

This question was aimed to know the pharmaceutical companies that implemented management control system. The answer provided by management was Yes or No. Only three (3) pharmaceutical companies did not reply those questionnaires; however, twenty-seven (27) pharmaceutical companies did as illustrated by figure 3 below.

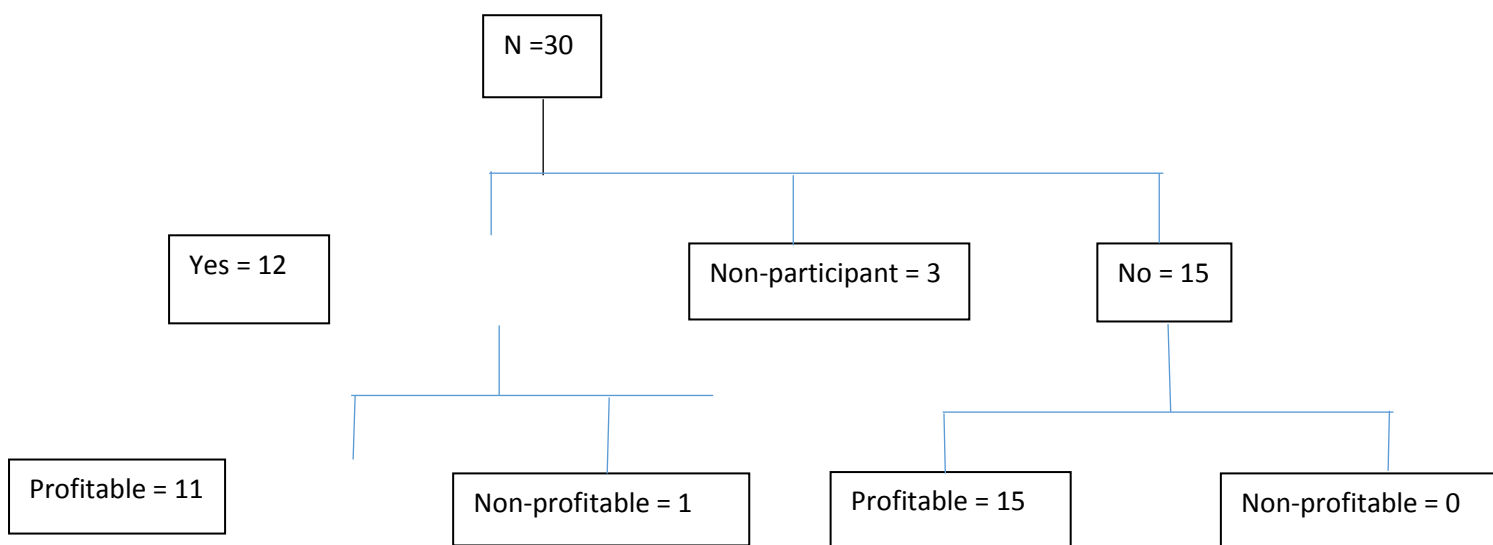


Figure 3. Number of pharmaceutical companies implemented management control system and its profitability and companies which did not implement MCS

Sample size of thirty (30) pharmaceutical companies randomly selected, twelve (12) managers from different companies responded that they have MCS in place while fifteen (15) agreed not to have MCS in place. In addition, from the 12 pharmaceutical companies who agreed to have MCS one (1) replied that MCS is not profitable while eleven (11) replied that MCS is profitable. Ndiaye *et al.* (2019, p.44) also agreed that “monitoring in many instances poses a positive effect on profitability of any organization. This is argued in the basis that when an organization monitors its internal control systems, then it is able to detect failures in different activities hence correcting them in good time and improving towards great success

which leads to high profit margins.” Nevertheless, those who did not implement MCS in place showed that they are still profitable.

### 4.3. Demographic Information

This section covers the demographic data. A total of thirty (30) pharmaceutical companies were selected and questionnaires were given for management and staff to fill. Out of thirty pharmaceutical companies 27 accepted the questionnaires and responded that is management and employees. On the other hand, three pharmaceutical companies accepted the questionnaires; however, the management indicated that they would not respond to the questionnaires and not disclosing their reasons for not participating in this study.

#### 4.3.1. Pharmaceutical companies’ operational years

The management of pharmaceutical companies were asked how many years the pharmaceutical companies in operation. Therefore, Table 1 depicts the pharmaceutical companies’ number of years in operation given in ranges of 5 years.

*Table 1. Pharmaceutical company operational years*

| <b>Years</b> | <b>Number of pharmaceutical companies</b> | <b>Percentage (%)</b> |
|--------------|-------------------------------------------|-----------------------|
| 0-5          | 11                                        | 40.74                 |
| 6-10         | 8                                         | 29.63                 |
| 11-15        | 6                                         | 22.22                 |
| 16-20        | 0                                         | 0.00                  |
| 21-25        | 1                                         | 3.70                  |
| 26-30        | 0                                         | 0.00                  |
| 30+          | 1                                         | 3.70                  |
| <b>Total</b> | <b>27</b>                                 | <b>100.0</b>          |

The pharmaceutical companies’ operational years ranged from 0 to 31 years with majority being in the 0-5 years as 11 (40.74%) respondents were at this range of the years. This is well shown by the figure 4 below.

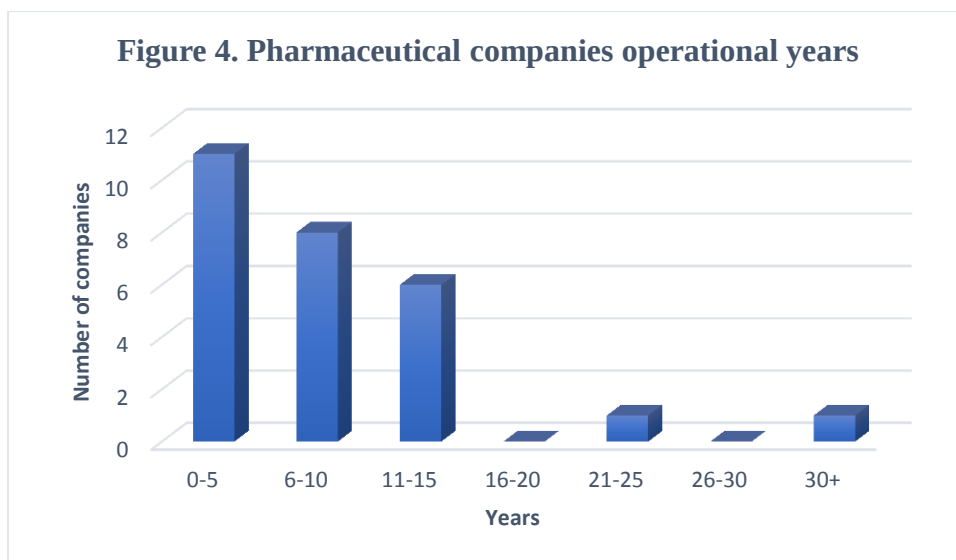


*Figure 4. Pharmaceutical companies' operational years*

With this graph in Figure 4 most companies are still new with highest number of pharmaceutical companies in the 0-5 years. However, number of operational years the pharmaceutical company has do not have impact on the effective implementation of MCS. Hence the more the pharmaceutical companies' years have, the more experience one would think the company would be more experienced with proper MCS for pharmaceutical company. Nevertheless, it is not the case as both pharmaceutical companies with many years of operation and new one seems to be more or less the same with lack of effective MCS implementation.

#### **4.3.2. Districts from where the pharmaceutical companies are based**

The respondents were from the ten districts of Lesotho namely Maseru, Mafeteng, Mophale's Hoek, Quthing, Qacha's Nek, Thaba Tseka, Leribe, Berea, Botha Bothe and Mokhotlong. Most pharmaceutical companies' respondents were from the Maseru district, the capital city of the Mountain Kingdom, with 10 (37%) pharmaceutical respondents. Table 2 illustrates the pharmaceutical companies that responded questionnaires per district.

*Table 2. Number of participated pharmaceutical companies per district*

| District    | Number of pharmaceutical companies | Percentage (%) |
|-------------|------------------------------------|----------------|
| Maseru      | 10                                 | 37             |
| Botha Bothe | 1                                  | 4              |

|               |           |            |
|---------------|-----------|------------|
| Leribe        | 3         | 11         |
| Berea         | 3         | 11         |
| Mafeteng      | 2         | 7          |
| Mohale's Hoek | 2         | 7          |
| Quthing       | 2         | 7          |
| Qacha's Nek   | 1         | 4          |
| Mokhotlong    | 1         | 4          |
| Thaba Tseka   | 2         | 7          |
| <b>Total</b>  | <b>27</b> | <b>100</b> |

From the table 2 above the district that had the highest frequency of pharmaceutical respondents is Maseru with 10 (37%) number of pharmaceutical companies which participated in this study.

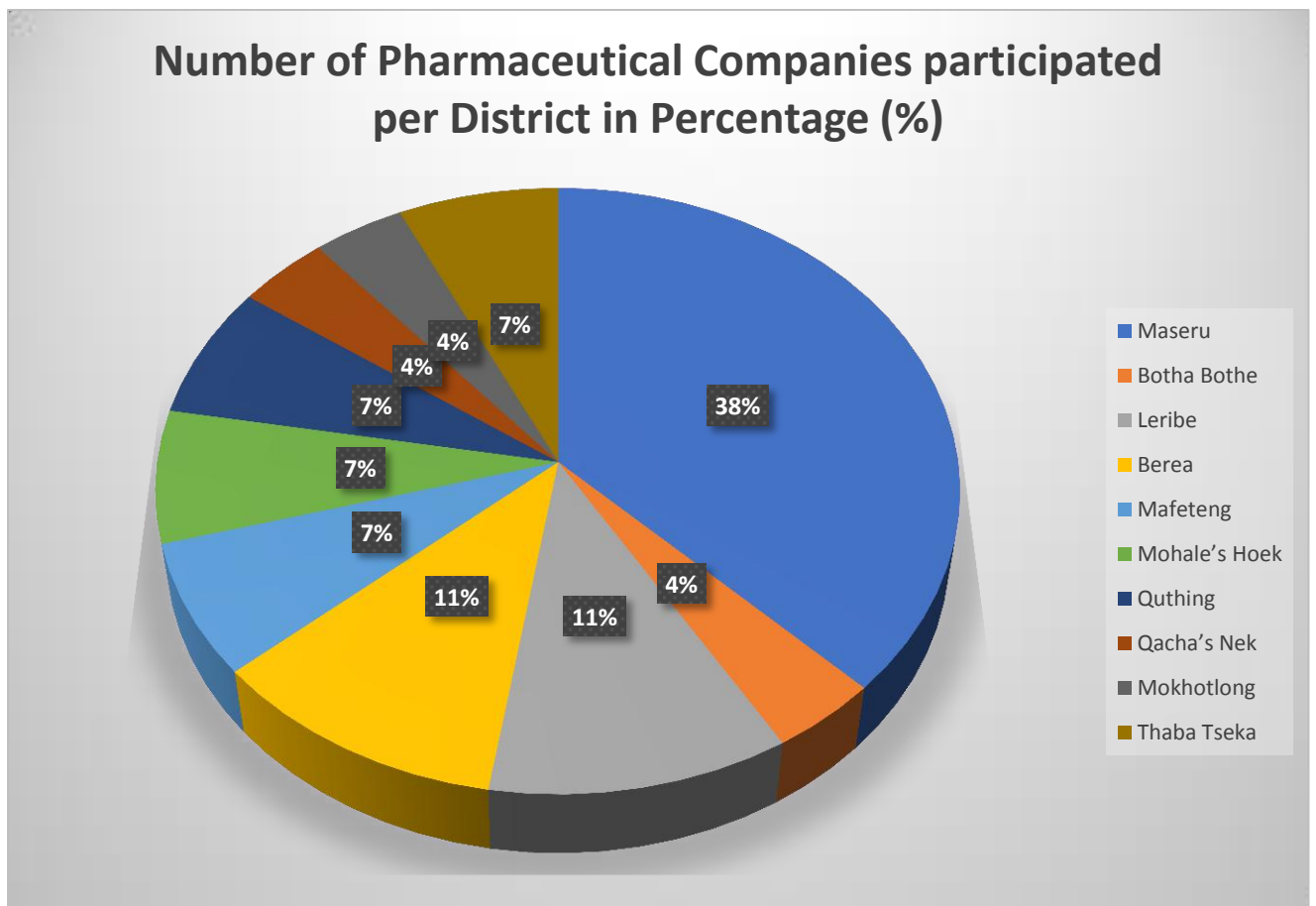


Figure 5. Percentage of pharmaceutical companies participated per district

Pie chart above has illustrated the number of pharmaceutical companies participated per district. Maseru has got the highest number of pharmaceutical companies participated in this

research

| Variables | Frequency (%) | Have MCS | Do Not |
|-----------|---------------|----------|--------|
|-----------|---------------|----------|--------|

study.

### 4.3.3. Demo

graphic

characteristi

cs

Looking at the demographic characteristics, had 30 pharmaceutical companies that were randomly selected. Twenty-seven (27) replied the questionnaires but three (3) pharmaceutical companies did not reply. From the 27 pharmaceutical companies who responded and replied the questionnaires, 12 have MCS in place while 15 did not have MCS. The questionnaires had been grouped into two categories which are management section and staff section. The questionnaires had been replied by 27 managers and 27 staff members of the same pharmaceutical companies respectively.

Table 3 has summarized all the demographic characteristics with regard to the respondents' answers. Total number of pharmaceutical participants have been shown as well as those who did not answer the questionnaires. From the number of years, the pharmaceutical companies have been drawn and showed those who have implemented the MCS and those who did not. Furthermore, pharmaceutical companies' participants have been classified according to their districts where the pharmaceutical company is located including those number of pharmaceutical companies that have MCS in place and those do not.

*Table 3. Distribution of respondents by their demographic characteristics.*

|                                                                                                                                                 |                                                                                                | <b>in Place</b>                                                                                              | <b>have MCS</b>                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Total</b>                                                                                                                                    | 30(100%)                                                                                       | 12                                                                                                           | 15                                                                                                      |
| <b>Response</b><br>Responded<br>Not Responded                                                                                                   | 27(90%)<br>3(10%)                                                                              | 12                                                                                                           | 15                                                                                                      |
| <b>Status</b><br>Manager<br>Employee                                                                                                            | 27(100%)<br>27(100%)                                                                           |                                                                                                              |                                                                                                         |
| <b>Number of years of pharmaceutical company</b><br>0-5<br>6-10<br>11-15<br>16-20<br>21-25<br>26-30<br>30+                                      | <br>11(41%)<br>8(30%)<br>6(22%)<br>0(0%)<br>1(3.5%)<br>0(0%)<br>1(3.5%)                        | <br>5(42%)<br>3(25%)<br>4(33%)<br>0(0%)<br>0(0%)<br>0(0%)<br>0(0%)                                           | <br>6(40%)<br>5(33%)<br>2(13%)<br>0(0%)<br>1(7%)<br>0(0%)<br>1(7%)                                      |
| <b>Districts</b><br>Maseru<br>Botha Bothe<br>Leribe<br>Berea<br>Mafeteng<br>Mohale'sHoek<br>Quthing<br>Qacha's Nek<br>Mokhotlong<br>Thaba Tseka | <br>10(37%)<br>1(4%)<br>3(11%)<br>3(11%)<br>2(7%)<br>2(7%)<br>2(7%)<br>1(4%)<br>1(4%)<br>2(7%) | <br>4(33.3%)<br>0(0%)<br>1(8.3%)<br>0(0%)<br>1(8.3%)<br>2(16.7%)<br>1(8.3%)<br>1(8.3%)<br>1(8.3%)<br>1(8.3%) | <br>6(40%)<br>1(6.7%)<br>2(13.3%)<br>3(20%)<br>1(6.7%)<br>0(0%)<br>1(6.7%)<br>0(0%)<br>0(0%)<br>1(6.7%) |

The findings from Table 3 illustrates that in almost every districts of Lesotho there is lack of effective management control system. In addition to that pharmaceutical companies of Lesotho showed lack of effective MCS regardless of the pharmaceutical companies' operational years. However, one would expect that pharmaceutical company that has many years of operation would have MCS but is not the case with the PCs of Lesotho there is poor MCS even in companies that have many years of operation.

#### 4.4. Qualitative Analysis

Most of the employees indicated that there is of lack of communication from the management and that they do not know their job responsibilities, they do every job that is assigned to them even those who know their job descriptions, they are not documented. For those that their job description is documented, most of them do not perform them as documented. Lastly most employees showed that they are not motivated by their management. The questionnaires were divided into two section which are management and staff sections.

##### 4.4.1. Management Section

In the case study management was referred to top management and middle management. Most management are still new in the pharmaceutical companies with work experience being between 0-10 years.

*Table 4. Years' managers worked for in a pharmaceutical company*

| <b>Years</b> | <b>Number of Managers</b> |
|--------------|---------------------------|
| 0-5          | 5                         |
| 6-10         | 8                         |
| 11-15        | 6                         |
| 16-20        | 5                         |
| 21-25        | 2                         |
| 26-30        | 0                         |
| 30+          | 1                         |
| <b>Total</b> | <b>27</b>                 |

From the Table 4 above most managers had experience of 6-10 years. This is been well presented by figure 6 below. Moreover, from figure 6 most pharmaceutical companies, have managers with experience of 6-10 years followed by 11-15 years.



*Figure 6. Number of years' pharmaceutical managers have worked*

From the figure above managers that have more experience is one in the 31 years. Most of the managers are in the range of 6-10 years of experience as it is seen in figure 6 above. This maybe the possibility why there is no management control system in place in many pharmaceutical because they might not be familiar with effective MCS.

*Table 5. Table Monitoring, control and management of human resources regarding MCS*

| Questionnaires                                                              | Yes | No |
|-----------------------------------------------------------------------------|-----|----|
| Is there coordination and monitoring of employees                           | 20  | 7  |
| Does coordination and monitoring of employees improve employee's engagement | 18  | 9  |
| Do management hold meetings with their employees                            | 18  | 9  |
| Do employees raise their views and opinions                                 | 24  | 3  |
| Are there any kind of motivation for encouraging employees to work harder   | 8   | 19 |

|                                             |    |    |
|---------------------------------------------|----|----|
| Do employees know the goals of the business | 21 | 6  |
| Do the pharmaceutical company have targets  | 7  | 20 |
| Do employees have job description           | 5  | 22 |

From Table 5 above eighteen (18) managers indicated that their pharmaceutical companies coordinate and monitor their employees while nine (9) do not control and monitor staff. Besides, 18 managers from different pharmaceutical companies stated that they hold meetings with their employees some said monthly while others indicated when necessary to do so, however, reported not to hold meetings with employees. Twenty-four (24) managers of different companies stated that their employees do raise their opinions and views but 3 managers of three other pharmaceutical companies, their employees have no opinions and views since they do not even hold meetings with their subordinates. Nonetheless, nineteen (19) pharmaceutical companies' managers noted that they have no means in place for encouraging their staff to work harder, only 8 pharmaceutical companies do encourage their staff. Even though management stated that they have coordination and monitoring of employees however their employees mostly do not have job description that is 22 out of 27 pharmaceutical companies, about 81.4% of pharmaceutical companies not giving employees job description. As a result, lead to employees oblivious of their responsibilities. Since job description is defined by Mader-Clark (2013, p.3) according to Adhikari (2015, p.68) as "a clear and concise depiction of a job's duties and requirements." Therefore, without job description employees will not know what is expected out of them.

#### **4.4.2. Staff Section**

In the research study staff was referred to lower level employees and supervisors. As a result, staff was asked to read and sign the consent form after understanding what the research study was about. After signing the consent forms staff filled the questionnaires and indicating their work experience as tabled below.

*Table 6. Number of years' employees have worked in pharmaceutical companies*

| <b>Years</b> | <b>Number of employees</b> |
|--------------|----------------------------|
| 0-5          | 5                          |
| 6-10         | 11                         |
| 11-15        | 2                          |
| 16-20        | 7                          |
| 21-25        | 2                          |
| 26-30        | 0                          |
| 31+          | 0                          |
| <b>Total</b> | <b>27</b>                  |

Table 6 illustrates the responses of employees regarding management control system being in place. Adding to that utilization, monitoring and management of employees.



*Figure 7. Years' employees worked in pharmaceutical companies*

Figure 7 illustrated the years employees worked in pharmaceutical companies. In the range of 6-10 years most employees fell in this category that means most employees had work experience of 6-10 in the pharmaceutical companies. That means most of the staff might not be well equipped when it comes to effective MCS in pharmaceutical companies. Therefore, becoming difficult to raise even views regarding what should be expected from them as employees.

*Table 7. Monitoring of whether the is management control system through employees*

| <b>Questionnaires</b>                                     | <b>Yes</b> | <b>No</b>  |
|-----------------------------------------------------------|------------|------------|
| Is there good communication from management               | 13 (48.1%) | 14 (51.9%) |
| Do employees know their responsibilities                  | 12 (44.4%) | 15 (55.6%) |
| Have the responsibilities been documented                 | 5 (18.5%)  | 22 (81.5%) |
| Do you do your roles as documented in the job description | 5 (18.5%)  | 22 (81.5%) |
| Are you motivated by management                           | 12 (44.4%) | 15 (55.6%) |

From the Table 7 above most employees with 51.9% and 55.6% indicated lack of communication from the management and not knowing their responsibilities respectively since they will be doing whatever tasks the management will be assigning. In addition to that employees even those who know their responsibilities mostly are not documented about 81.5%. Lastly, most employees with 55.6% from different pharmaceutical companies pointed out that they are not motivated by their management.

#### **4.4.3. Factors affecting management control system especially**

This figure 8 shows the factors that affect effective performance of employees which implies effective management control system especially controlling, managing and coordination of workers. However, 81% employees' response indicated that there are no job descriptions and they are not doing work according to job descriptions since there are not available but only 19% stated to have job descriptions. Furthermore, 52% employees noted that there is lack of communication from their management while 48% indicated that is good communications from management. Moreover, 56% of the employees reported that they are not motivated by the management while 44% indicated that there is motivation from the management.

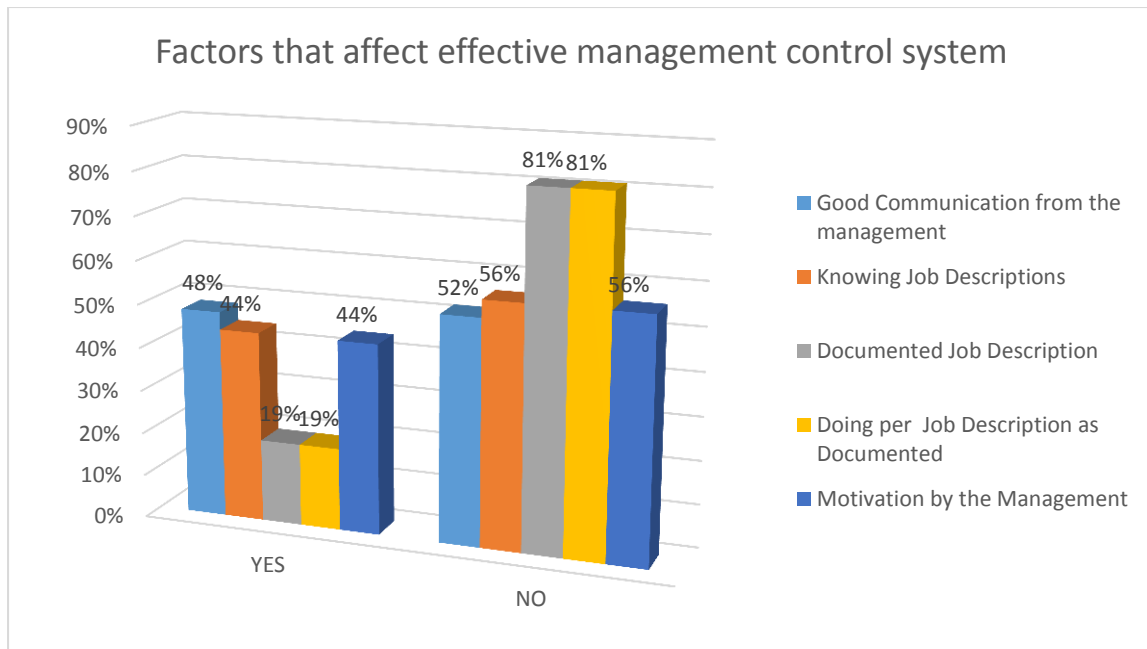


Figure 8. Shows distribution of factors that affect effective management control system

As reported by Campbell, Campbell-Phillips and Phillips (2020) “communication is fundamental and vital to all administrative functions and communications is a means of transmitting information and making oneself understood by another or others hence good communications skills are very important to ones success as an administrator.” Suffice to say, from the figure 8 above employees indicated that there is lack of communication from management. As a result, becomes difficult for management to have control and coordination over employees once there is bad communication hence would result in failing to do the work accordingly while other employees may opt to resign. More so, poor communication lead to unhappy workers which usually makes clients unhappy as they pass that poor communication thereby decreasing clientele hence low sales resulting into less profit. In addition, most employees stated that management is not motivating them. However, Robescu and Iancu (2016) indicated that communication that is between management and employees is a strong predictor of job satisfaction of workers. Sarpong (2016) reported that “lack of proper motivation may result in losses which may eventually lead to low staff turnover, poor attitude towards work, low output level and low profitability.”

*Table 8. Elements influencing MCS and their practices and controls*

| <b>Elements</b>                        | <b>Practices and Controls</b>                                                                                                                                                          |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Systems utilize                        | <ul style="list-style-type: none"> <li>• Stock management</li> <li>• Assess overall cost of business</li> <li>• Monitor employees</li> </ul>                                           |
| Ways of Implementing MCS               | <ul style="list-style-type: none"> <li>• Consultancy</li> <li>• Learning and Initiation</li> </ul>                                                                                     |
| Employee Involvement                   | <ul style="list-style-type: none"> <li>• Monthly meetings</li> </ul>                                                                                                                   |
| Kind of Motivations given to Employees | <ul style="list-style-type: none"> <li>• Salary increment</li> <li>• Time for leisure and Refreshments</li> <li>• Proper assignation of duties</li> <li>• Thirteenth cheque</li> </ul> |

## **4.5. Quantitative analysis**

### **4.5.1. Correlation**

According to Schober, Boer and Schwarte (2018, p.1763) correlation is defined as “a measure of a monotonic association between 2 variables. Monotonic relationship between 2 variables is a one in which either as the value of 1 variable increases, so does the value of the other variable; or as the value of 1 variable increases, the other variable value decreases.” Schober, Boer and Schwarte (2018, p.1767) further stated correlation coefficient as describes the strength and direction of an association between variables. On the other hand, Senthilnathan (2019) pointed out measuring correlation coefficient as providing information of how close the two variables are to each other. There are two types of correlation coefficients namely Pearson’s Product Moment correlation coefficient and Spearman’s Rank correlation coefficient, (Senthilnathan, 2019). In this study Pearson’ Product Moment Correlation coefficient has been applied to determine the relationships between the two variables. Kumari and Yadav (2018) stated that correlation coefficient is a dimensionless number ranging from -1 to +1 whereby a value towards +1 indicate positive relationship while -1 indicated negative relation.

*Table 9. Multi-linear regression analysis displaying relationship between effective MCS and company operational years and number of years employees worked*

| <b>Effective MCS</b>    | <b>Company operational years</b> | <b>Number of years employees worked</b> |
|-------------------------|----------------------------------|-----------------------------------------|
| 0                       | 7                                | 7                                       |
| 0                       | 13                               | 13                                      |
| 1                       | 4                                | 4                                       |
| 1                       | 5                                | 5                                       |
| 1                       | 10                               | 10                                      |
| 1                       | 3                                | 3                                       |
| 0                       | 8                                | 2                                       |
| 1                       | 3                                | 2                                       |
| 0                       | 31                               | 19                                      |
| 0                       | 4                                | 4                                       |
| 1                       | 8                                | 8                                       |
| 1                       | 1                                | 1                                       |
| 0                       | 5                                | 4                                       |
| 0                       | 8                                | 8                                       |
| 0                       | 12                               | 6                                       |
| 1                       | 2                                | 2                                       |
| 0                       | 1                                | 1                                       |
| 0                       | 13                               | 13                                      |
| 0                       | 1                                | 1                                       |
| 1                       | 13                               | 10                                      |
| 0                       | 21                               | 6                                       |
| 1                       | 7                                | 7                                       |
| 1                       | 6                                | 5                                       |
| 0                       | 12                               | 9                                       |
| 0                       | 9                                | 8                                       |
| 1                       | 14                               | 11                                      |
| 0                       | 2                                | 2                                       |
| Correlation coefficient | -0.26177                         | -0.13774                                |

From the table 9 above 1 denoted having effective MCS while 0 denoted having no effective MCS in place. Besides, both correlation coefficients of our explanatory variables (Operational years of a company and number of years an employee worked for a company) are negative which means there is no relationship between effective management control system and Operational years of a company and number of years an employee has worked for a company.

#### **4.5.2. Regression**

According to Sarstedt and Mooi (2014) regression analysis is used in the analysis between relationship of one dependent variable and one independent variable. Sarstedt and Mooi (2014) went further to state that regression analysis;

- Indicate if independent variables have a significant relationship with dependent variable.
- Helps make predictions.
- Allows people to compare the effects of variables measured on different scales

The data was captured in Microsoft Excel, then selected data analysis on the tool bar then chose regression and highlighting the variables that is selecting data you want to appear. Then click ok and comes like the table 10 below.

*Table 10. Multiple linear regression statistics of the MCS in pharmaceutical companies in Lesotho*

|                                  |                     |                       |               |                |                       |                  |                    |                    |
|----------------------------------|---------------------|-----------------------|---------------|----------------|-----------------------|------------------|--------------------|--------------------|
| SUMMARY OUTPUT                   |                     |                       |               |                |                       |                  |                    |                    |
|                                  |                     |                       |               |                |                       |                  |                    |                    |
| <i>Regression Statistics</i>     |                     |                       |               |                |                       |                  |                    |                    |
| Multiple R                       | 0.30587214          |                       |               |                |                       |                  |                    |                    |
| R Square                         | 0.09355776          |                       |               |                |                       |                  |                    |                    |
| Adjusted R Square                | 0.01802091          |                       |               |                |                       |                  |                    |                    |
| Standard Error                   | 0.50178632          |                       |               |                |                       |                  |                    |                    |
| Observations                     | 27                  |                       |               |                |                       |                  |                    |                    |
|                                  |                     |                       |               |                |                       |                  |                    |                    |
| ANOVA                            |                     |                       |               |                |                       |                  |                    |                    |
|                                  | <i>df</i>           | <i>SS</i>             | <i>MS</i>     | <i>F</i>       | <i>Significance F</i> |                  |                    |                    |
| Regression                       | 2                   | 0.623718431           | 0.3118592     | 1.238571       | 0.307667482           |                  |                    |                    |
| Residual                         | 24                  | 6.042948236           | 0.2517895     |                |                       |                  |                    |                    |
| Total                            | 26                  | 6.666666667           |               |                |                       |                  |                    |                    |
|                                  |                     |                       |               |                |                       |                  |                    |                    |
|                                  | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i> | <i>Lower 95%</i>      | <i>Upper 95%</i> | <i>Lower 95.0%</i> | <i>Upper 95.0%</i> |
| Intercept                        | 0.54856298          | 0.171152519           | 3.2051119     | 0.003793       | 0.195321537           | 0.9018044        | 0.195321537        | 0.90180441         |
| Company Operational years        | -0.0388221          | 0.027625881           | -1.405279     | 0.172751       | -0.09583909           | 0.0181949        | -0.09583909        | 0.01819495         |
| Number of years employees worked | 0.03418784          | 0.041993544           | 0.8141214     | 0.42358        | -0.05248257           | 0.1208583        | -0.05248257        | 0.12085826         |

Multiple linear regression was performed to model if there is relationship between effective management control system and Operational years of a company and number of years an employee has worked for a company. Figure 9 showed that there is only 9% of a change in effective management control system that is driven by Operational years of a company and number of years employees has worked for a company. Significance F shows that our regression is weak since it is higher than 0.05

#### 4.6. Summary of chapter 4

Chapter 4, illustrated the data results, analysis of data and interpretation of those results. This chapter has been composed of descriptive analysis, demographic information, qualitative analysis and quantitative analysis.

## **Chapter 5. Discussion, Conclusion and Recommendations**

### **5.1. Introduction**

In chapter four the findings were discussed and the data collected was analysed and interpreted. Therefore, it was determined that there is lack of effective MCS execution amongst the Lesotho pharmaceutical companies. Besides, chapter five is the final chapter of research study whereby the findings are discussed and the conclusion is drawn. On the other hand, chapter five entails the discussion of the findings of the research study, the conclusions as well as the recommendations where there were limitations, finally it concludes with areas for further research.

### **5.2. Discussion**

The purpose of this research study was to see whether this is proper utilization of human resources, effectively and efficiently in the best interest of the pharmaceutical company and also to achieve the desired goals of the company. As a result, chapter 5 involves the discussion of major findings relating to the effective management control system looking at the pharmaceutical companies in Lesotho. Besides Chapter 5 entails discussion and feasible areas for future research to assist in answering the research question.

- What are the suitable ways of applying successful MCS in a pharmaceutical industry
- Does MCS has a positive effect in increasing performance and good utilization of human resource in enhancing productivity and competitive advantage in comparison to its rivals than in an environment where there is lack or no MCS in place especially in the control and monitoring of human resources for achieving the business strategies and objectives.

Since MCS focuses more on the monitoring, control, and management and coordination of human resources such that there is proper utilization of financial resources and physical resources as well, questionnaires issued to 30 pharmaceutical companies (PCs) whereby 3 (10%) pharmaceutical companies did not respond to questionnaires and 27 (90%) pharmaceutical companies responded. Also, it was determined that 12 (44%) of pharmaceutical managers (PMs) responded to questionnaires as having MCS in place while 15 (56%) responded not having MCS in place. Therefore, majority of PCs indicated not having MCS in place. On the other hand, looking at whether MCS is profitable those that

implemented MCS only 19 (91.7%) out of 21 that have MCS in place stated that MCS is profitable as everything seems to be in order.

Management of PCs responded to the questions of how many years the company is in operation and between 0-5 years about 40.7% of the PCs indicated being new in the PI only a few were having many years of operation. Again, the PCs were selected from the ten districts of Lesotho with Maseru being the highest with 37% followed by Bera and Mafeteng with 11% these might be due to Maseru being the capital city of Lesotho with large population hence having more PCs than other districts. However, most PCs in the capital city do not have MCS that is 60% of the PCs. Besides, one would expect that having effective MCS in place, however, is not the case with the results obtained as new PCs having operational years ranging from 0-5 years seem to be having effective MCS in place that 40% of the PCs are in 0-5 years of operation.

#### **5.2.1. Management Section**

Coming to the manager's experience was obtained that more PMs have 6-10 years of experience and might be the reason why effective MCS is not implemented in many PCs as they might not be familiar with effective MCS. Besides, majority of PMs that is 20 of PCs indicated having coordination and monitoring of their staff while 7 PCs do not control and monitor employees. It also determined that 18 PCs stated coordination and monitoring of staff as improving staff engagement in their day to day roles. However, 9 PCs reported that coordination and monitoring of staff does not improve employee's engagement. Moreover, it was determined that PMs do not hold meetings with their staff that is 18 PCs out of 27 PCs however this is contradiction with 24 PMs from different PCs reporting that employees raise their views and opinions only 3 PMs said their employees do not raise views and opinions. My argument being if 9 PMs from different PCs do not hold meetings with their staff where do employees raise their views and opinions as only 3 PCs agree not staff raising their views and opinions. One would expect that PCs that do not give their staff to raise their views and opinions would be 9 or more not less.

19 pharmaceutical companies' managers reported that they do not have means in place in order to encourage their employees to work even harder but only 8 PCs do not encourage their employees with bonuses, recognition and sometimes being taken to lunch when business has done well. Although PMs noted to have coordination and monitoring of employees but most PMs reported that there are no job descriptions for their staff. Needless to say, becomes

difficult for management to monitor, coordinate and manage without documentation of staff responsibilities. In addition to that employees would not know their roles and will just wait to be told what to do hence without being told they would be stuck with work. According to Schneider and Bowen (2005) as stated by Muriithi (2017) job description is regarded as written statement that entails all the essentials duties and responsibilities information assigned to one or more individuals performing a job. Muriithi (2017) added that detailed job description are vital for company and employees' performance in the company. "Among the factors that threatens performance of the employees in relation to their job description documents. This brings about employee classification," (Muriithi, 2017, p. 6). Job description clarifies the duties and responsibilities of an employee which are expected to be performed, (Adhikari, 2015). As a result, without job description staff will not know what is expected out of them.

### **5.2.2. Staff Section**

In this research study number of employees that were found to have majority of experience were in the 6-10 years. That means when coming to the effective MCS the staff might be inexperienced when it comes to effective MCS in PCs or even if they are experienced they are not given the opportunity as 44% of PCs implemented effective MCS,

51.9% of employees reported that there is good communication from management while 48.1 % stated there is good communication. Suffice to say, as majority of workers stated lack of communication hence Campbell, Campbell-Phillips and Phillips (2020, p. 33) noted that "with poor management skills, both employees and management will be frustrated and will tend to give up on their perceived goals. Also, with poor management, employees will be denied the right to learn develop and communicate effectively, and this can contribute to delinquencies which will in turn affect our communities in various ways." Therefore, lack of communication from management indicates poor management skills from management. Also, 55.6% of employees from different PCs indicated that they do not know their responsibilities and those who said that they know their responsibilities, however, the responsibilities are not documented. This results in that roles would not be done according to the documented responsibilities because they are no documented job responsibilities. On the other hand, 56% employees reported that there is lack of motivation by the management. Consequently, not motivating may end up in losses that may finally lead in losing employees turnover, poor attitude towards work, low output level and low profitability (Sarpong, 2016).

Correlation Coefficient was done to measure the strength of the relationship between effective management control system and company operational years and number of years employees worked for a company. It was determined that there is no relationship between effective management control system and operational years of a company and number of years an employee has worked for a company since both correlation coefficients are negative and negative correlation coefficient shows a very weak relationship.

### **5.2.3. Regression analysis**

Multi liner regression analysis was done to see how much change in company operational years and number of years employees worked for a company affect change in effective management control system. There is very small change in effective management control system that is affected by operational years of a company and number of years.

Majority of pharmaceutical companies indicated that they do not have management control system in place. Besides, those that have MCS in place its only partial since they apply other systems while others did not have job descriptions for their employees for them to be able to perform their duties effectively knowing the expectations of the work they are doing. Needless to say, 12 of pharmaceutical companies that indicated that they implemented management control systems, out of those 12, eleven (11) PCs stated that MCS has a positive effect on profitability of the company as there is an increase in performance and good utilization and allocation of human resources in enhancing productivity. Moreover, competitive advantage is seen due to the performance of employees on daily roles. It has been determined that PCs that have MCS in place do perform better than PCs that do not have MCS in place as their human resources is always motivated. However, effective MCS was only observed in five PCs that were seen to have employees motivated hence employees performing at their full capacity, employees having job descriptions which details all the responsibilities of the workers that is knowing what is expected out of them. Seven (7) PCs were determined to have implemented MCS partially while 15 PCs have no MCS in place and some oblivious of MCS and what it is.

According to Merchant and Van der Stede (2006) as reported by Reimer, Van Doorn and Heyden (2016) management control system has been supposed to have an effect on the behavior of workers in a manner that the company can attain its goals. Therefore, good and effective management control system in pharmaceutical companies would make the company achieve its desired goals and objectives as expected.

### **5.3. Conclusion**

In this research study of investigating the effect of implementing effective management control system looking at the pharmaceutical industry of Lesotho. It has been determined that pharmaceutical companies of Lesotho taking 30 PCs whereby 27 PCs responded the questionnaires, 12 PCs have MCS in place but 15 PCs have not implemented MCS. Besides, PCs are the ones that were determined to have effective MCS and also, we found that they do perform better than the PCs that do not have MCS in place and/or that have partial MCS in place. Furthermore, PCs that have effective MCS realize more profits with happier clientele due to the happy employees which has been managed, coordinated, controlled and monitored well and employees knowing their responsibilities. Moreover, employees performing more better and being fully engaged due to motivation given by the management.

### **5.4. Recommendations**

Pharmaceutical companies in Lesotho are about 100 active companies and only 30 companies were selected. Suffice to say, I recommend that about 50% to 60% of the PCs be sampled in order to determine the effect of implementing effective management control system in pharmaceutical companies of Lesotho. Also, so that pharmaceutical companies of Lesotho looking at those that did not have MCS in place realize the importance of effective MCS implementation. On the other, it is essential for PCs have job description for their employees to be able to know their day to day roles and responsibilities. Moreover, pharmaceutical management should motivate their staff in order for them to maximize employees' performance hence increasing productivity thereby maximizing profits.

### **5.5. Possible areas for further research**

Possible areas for further research may include looking at the impact of documented job descriptions (the roles and responsibilities) affect MCS positive or negative focusing on the Lesotho pharmaceutical companies. Other possible areas involve the impact on productivity and profits of effective MCS in the pharmaceutical companies of Lesotho. In addition, can also look at the importance of employees' motivation looking at the Lesotho pharmaceutical companies.

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## **APPNDICES**

### **Interview guide**

1. What do most employees think of the ways that management treats them?
2. Do management hold meetings with staff?
3. Do employees be allowed to raise their views?
4. Which management control systems are in place?
5. What are ways of implementing effective management control system?

## Appendix B

### Consent Form

#### WHAT YOU SHOULD KNOW ABOUT THIS RESEARCH:

- **Research Topic:** Investigating The Effect Of Implementing Effective Management Control System: The Case Study Of The Pharmaceutical Industry In Lesotho
- I give you this consent form so that you read about the purpose, risks, and benefits of this study.

The main objectives of this research are:

1. To establish ways of implementing successful management control system in a pharmaceutical industry in Lesotho
  2. To evaluate the effectiveness of the execution of management control system looking at the pharmaceutical industry in Lesotho.
- The collected data will be analyzed and evaluated whether there is management control system in place
  - The research may help the company about the utilization of good management control system.
  - We cannot promise that this research will benefit you as an individual.
  - Your participation in this research is ***voluntary and anonymous***
  - Whatever your decision, it will not affect your current or future relationships with us.
  - You are sincerely required to read this consent form *carefully*, to ask any questions *before* making your decision to participate or not to participate in this study.

#### Looking forward to working with you!

#### AUTHORIZATION

I, the undersigned, agree to participate in this research study. I have read and understood the information provided above.

(You are allowed to choose someone to sign this form for you, if necessary)

Full names of resource person (use uppercase letters):

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Date: \_\_\_\_\_ Company/Institution: \_\_\_\_\_

Signature of participant or authorized representative: \_\_\_\_\_

Signature of the researcher obtaining consent: \_\_\_\_\_

### **Questionnaire**

**District:** \_\_\_\_\_

**Date of interview:** \_\_\_\_\_

### **Personal information of participant**

Full Name: \_\_\_\_\_

Company: \_\_\_\_\_

### **Management**

1. How many years is the pharmaceutical company in operation?

\_\_\_\_\_

2. How many years have you worked in the pharmaceutical company?

\_\_\_\_\_

3. Do the company have management control system in place

\_\_\_\_\_

4. If yes how are the system utilized to achieve the goals of the business? Also, if not what are the reasons for not implementing management control systems?

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5. Does effective management control system have impact on the profitability of the company? If yes how?

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6. What are the ways of implementing effective management control system within the company?

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7. Are there any coordination and monitoring of employees, does it improve employee's engagement?

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8. Do management hold meetings with their employees, if yes how often?

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9. Do employees given chance to raise their views and opinions?

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10. What does the management do with the proposed views and/or opinions of employees?

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11. Are there any kinds of motivation for encouraging staff to work even harder? If yes what kind of motivations are in place?

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12. What other motivations can be used to improve the performance of employees?

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13. What are the goals of the business if any?

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14. Do employees know the goals of the business aims to achieve?

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15. After the financial year ends, do the company put targets and if yes how the company works towards achieving the set targets?

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16. Do employees have job description detailing their key responsibilities within the company?

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17. How are employees coordinated, monitored and controlled in doing their daily roles?

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18. Benefits of having management control system for the company

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**Staff**

1. How many years have you worked in the pharmaceutical company?

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2. What do you think are the ways of treating employees?

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3. Is there any good communication from management, even when solving issues?

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4. Do you know your responsibilities of the title you are given? If yes have they been documented that is having written job description?

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5. Do you perform your roles as documented in job description? If not why?

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6. Are you motivated by the management? How?

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