THE RAMIFICATION OF RISK MANAGEMENT ON PERFORMANCE OF PHARMACUTICAL BUSINESSES OPERATING IN ADDIS ABABA, ETHIOPIA: EMPIRICAL STUDY

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The ramification of risk management on performance of pharmaceutical businesses operating in Addis Ababa, Ethiopia: Empirical study

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DECLARATION

I, Abel Getachew, hereby declare that this thesis entitled: The ramification of risk management on the performance of pharmaceutical businesses operating in Addis Ababa, Ethiopia: is based on my original work except for quotations and citations which have been duly acknowledged.

I also declare that it has not been previously or concurrently submitted in Addis Ababa University or any other institutions. Now, it is offered for the award of the degree of Executive Master of business Administration from Addis Ababa University.

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Signature Date

Statement of Certification

This is to certify that Abel Getachew Omer has carried out this research work on the topic entitled “The Ramification of Risk Management on the performance of Pharmaceutical Businesses Operating in Addis Ababa, Ethiopia” under my supervision, the research is his original work and has not been presented and/or submitted for a degree in any university, and sources of materials used for the study have been duly acknowledged. Thus, it is sufficient for the partial fulfillment of the requirements for the award of Executive Master of Business administration.

Advisor – Dr. Abera Legesse

_____ _____

Signature Date

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Acronyms/Abbreviation

KPI	Key performance indicator
EFDA	Ethiopian food and drug administration authority
AAFDA	Addis Ababa food and drug administration authority
CAGR	Compound annual growth rate
SOPs	Standard operation procedures
SPSS	Statistical package for social science
WHO	World health organization
FMEA	failure mode effects analysis
FMECA	failure mode effects and criticality analysis
ART	Alternative risk transfer
IT	Information technology
FTA	fault tree analysis
KPMG	Klynvels Peat Marwick Goerdeler

HACCP	hazard analysis and critical control points
HAZOP	hazard operability analysis
PHA	preliminary hazard analysis
MLR	Multiple linear regression
ISO	International organization for standardization

Abstracts

The overriding purpose of the research is to investigate the ramifications of risk management on the overall business performance of pharmaceutical companies working in Addis Ababa City Administration. It's also for filling the literature and knowledge gap seen in the pharmaceutical business sector risk management practice. Evidently, there's a dearth of study on risk management of pharmaceutical sectors in Africa, particularly in Ethiopia and its capital Addis Ababa; therefore the study prominently enable pharmaceutical businesses working in the city; categorically pharmaceutical manufacturers/ import & wholesalers/ retail outlets to survive and sustain businesses, not only that but also to thrive in an increasingly uncertain pharmaceutical business environment. The research was employed an empirical research design and quantitative research approach. Both primary and secondary data was employed. Questionnaire was the main data collection instrument. Among 1567 pharmaceutical firms, 340 sample sizes were selected using stratified random sampling technique.

Multiple linear regressions were used to analyze the relationships between independent and dependent variables. Statistical package for social science (SPSS) version 29 was used to analysis of quantitative data from the questionnaire. Moreover, the research finding shows that the independent variables risk identification, risk assessment, risk response and risk monitoring significantly affects the business performance of companies in the pharmaceutical sector.

Based on the findings pharmaceutical companies in Addis Ababa face a two-fold challenge with respect to overall business risk. First, they need to identify and understand the specific risks they face, and, second, they must also create a fundamental, practical approach for evaluating these risks. Particularly for large pharmaceutical companies in the city who adopts well founded organizational structure and leadership system, implementing strategies to address anything that could go wrong in the businesses they run is monumental.

Furthermore, as the pharmaceutical business sector grow, evolves and changes in the city, so too will the natures of the risks these companies face. The risks and there management recommendations here are those that the research output vindicate and/or believe should be at the forefront of pharmaceutical leader's minds. A risk intelligent approach to comprehending and addressing risks can help keep pharmaceutical companies attuned to what risks are most important, what risks may be emerging, and what can be done to both manage risks and capitalize on them.

Key words: Risk Management, Business Performance, Risk Identification, Risk Assessment, Risk Response, Risk Monitoring, Pharmaceutical businesses

CHAPTER ONE

1. INTRODUCTION

Numerous of the most excellent businesses in the pharmaceutical business sector, like others have been ruined by a miscalculation or an error in judgment that could have been avoided with proper risks management planning. The research will play a crucial role by enabling companies in the pharmaceutical sector survive and sustain businesses, not only that but also to thrive in an increasingly uncertain pharmaceutical business environment.

Companies need to keep an eye out for both known and unknown risks that could harm them (Economic intelligence unit: The Economist, 2009). Managers cannot afford making strategic decisions or enter in to imperative commerce exchange without a full assessment of the risk involved. Moreover, the chapter starts by elaborating important ideas and then extended to the research basses, statement of the problem, research questions, objectives, scopes, limitations, significance and organization of the study.

1.1. BACKGROUND OF THE STUDY

(Elaine C. Stroud & Gregory Higby, 2020) Pharmaceutical company's history and the use of medicines or drugs are quite old from the Medieval Ages where the records are found of people making use of herbs and other plants for healing. We can trace the concept of the modern pharmaceutical industry by the discovery of penicillin and insulin drugs in the 20th century. Different advanced countries, particularly in Europe, began producing these drugs in large quantities. Pharmacists from Arabia in Baghdad established the first drugstore in the year 754. Many drugstores in North America and Europe became large pharmaceutical companies in the 19th century. The 19th and 20th centuries saw the founding of many big drug companies.

Since then pharmaceutical business sector has been continuing to be a fundamental portion of the healthcare framework in each nation (James L. Vesper, 2006). The industry comprise of companies authorized to research, develop, market and disseminate medications for the

avoidance, treatment and cure of illnesses and other wellbeing conditions. According to recent studies the global pharmaceutical market is anticipated to extend at a compound annual growth rate (CAGR) of 5.6 % from $ 1,075.97 billion in 2021 to $ 1,136.23 billion in 2022; the trajectory also indicates that the market will grow to a CAGR of 9.5 % and it's estimated to reach $ 1,635.128 billion in 2026. The global sickness profile is being impacted by the rise in inactive employments, busy lifestyles, and altering consumer testes. Non communicable illnesses, such as cancer, diabetes, and cardiovascular diseases, are exceedingly predominant. Incessant illnesses such as diabetes are caused by long working hours, lack of physical activity and unhealthy eating and drinking propensities.

In addition, according to the study made by a team of experts from Ethiopian food, and drug administration authority (EFDA), ministry of health and pharmaceutical fund and supply agency in collaboration with USID, WHO and EU, showed the existence of numerous positive and encouraging improvements, in some areas of pharmaceutical business sector. However, there are areas which require further improvements in order to improve the sector and make quality, safe and affordable medicines more accessible and affordable and keep the sector going forward (EFDA, PFSA, MSH & WHO, 2017). Subsequently, to do so advanced risk management skills and knowledge's do more than just point out existing risks but it ought also calculate the uncertainties in arguably un-modernized pharmaceutical business environment of the city and predict their influence on the overall growth and success of both manufactures, importers, distributer and retailers of the pharmaceutical business operating in the capital city of Ethiopia and also the set of African union and most international organizations.

Furthermore, as part of implementation, Pharmaceutical Logistic Master Plan was prepared, and Pharmaceuticals Fund and Supply Agency (PFSA) was established in September 2007 by Proclamation No. 553/2007 to assure uninterrupted supply of pharmaceuticals to the public at an affordable price. In 2015, the annual pharmaceutical market in Ethiopia, was estimated at US$400 to US$ 500 Million and expected to reach at around US$ 1 billion by 2018 (MoH and MoI, 2015; Frost and Sullivan, 2012). The number of pharmaceutical importers and wholesalers was 329 and 287, respectively and in 2007 E.C. there were 5136 medicine retail outlets including 780 pharmacies, 1030 medicine shops and 3266 rural medicine vendors. Most of the local

pharmaceutical manufacturing companies operate below at lower capacity and could only cover about 20% of the local demand (MoH and MoI, 2015). In 2015, the Government of Ethiopia in collaboration with WHO has developed a national strategy and plan of action for pharmaceutical manufacturing development in Ethiopia that facilitates the development of the sub-sector and thereby increasing people's access to quality proven affordable medicines..

Accordingly, advanced risk management skills and knowledge are important to not only identify current risks, but also calculate uncertainties in the old-fashioned pharmaceutical industry of the Addis Ababa. This helps to predict how these uncertainties will affect the performance and success of manufacturers, importers, distributors, and retailers of pharmaceutical products in the capital city of Ethiopia, as well as in the African Union and international organizations. Risk management in general encompasses the identification, analysis and response of hazard variables that have a decisive role in determining the life of a business. Compelling risk management implies attempting to control, as much as possible, future outcomes by acting proactively rather than reactively (Sidney Apaloo, 2018). Subsequently, effective risk management offers the potential to diminish both the possibility of a risk happening and its potential impact.

1.2. STATEMENT OF THE PROBLEM

The need for authentic risk management structure is extremely crucial, it's seen as one of the most essential internal itineraries upon which decisions are made. Hence, mismanaging risk is a direct threat to firm's existence, the logical conclusion for the overall challenge is to adopt and implement risk management strategies to help pharmaceutical firms' better deal with the issue and also to improve profitability, which enables pharmaceutical business in the study area keep their wheels turning.

Unfortunately, the greatest problem of pharmaceutical sector businesses like others is in their failure to understand risks and to rove into it, managing risk is an issue that needs to be stressed and investigated, particularly in the pharmaceutical business sector. (Economics intelligence unit, The Economist, 2009) In the sector, there has been lack of guidance on how best to manage

risks; to make matters worse most retail pharmaceutical outlets usually have limited resources, inflexible procedures and lack of knowledge when it comes to risk management.

A great risk management system helps the firm (manufacturers, importers, distributers and retail outlets) to protect from unfavorable consequences and allow the organization to take the benefit of any possible opportunities. Furthermore the research will uncover the potentials of risk management implementation in reducing the failure rate of pharmaceutical businesses.

1.3. RESEARCH QUESTIONS

The general research question is [how the risk management practices of pharmaceutical companies in Addis Ababa, Ethiopia do affects the overall business performances of firms in the sector?]

Specifically;-

- ✓ What is the effect of risk identification of pharmaceutical businesses in the study area on the performances of companies in the pharmaceutical sector?
- ✓ To what extent dose risk assessment of similar pharmaceutical businesses in the study area affects the performances of companies in the sector?
- ✓ What is the significance of risk response in the business performances of pharmaceutical firms?
- ✓ What is the influence of risk monitoring on business performances of pharmaceutical companies in the study area?

1.4. OBJECTIVE OF THE STUDY

The objective of this paper is to provide empirical evidence of the relationship between risk management and firm performance for pharmaceutical businesses; namely pharmaceutical industry (manufacturers), pharmaceutical importers, pharmaceutical wholesalers, pharmacies and drug stores.

1.4.1. General objectives

The overall aim of the study is to analyze the extent to which risk management framework has impacted performance in the pharmaceutical business sectors working in Addis Ababa.

1.4.2. Specific objectives

- The paper solely focused on overseeing how risk identification impact the performance of pharmaceutical firms who operates with in Addis Ababa city administration.
- To assess the effect of risk assessment towards the performance of pharmaceutical companies who work in capital city of Ethiopia.
- To examine the effect of risk response on the performance of pharmaceutical business working currently in Addis Ababa, Ethiopia.
- To analyze the impact of risk monitoring on the performance of pharmaceutical companies in Addis Ababa; in order to maximize the performance of manufacturers, wholesalers, and retailers involved in the specified business area.

1.5. SCOPE OF THE STUDY

The term risk management cuts across every kind of business sectors or industries. Among such industries pharmaceutical sectors such as pharmaceutical manufacturers, drug and medical supplies importers, pharmaceutical wholesaler, pharmacies and drug stores are the main. Geographical, conceptual and methodological scopes are as follows;-

Geographical

This research is however limited to pharmaceutical businesses working in Addis Ababa city administration.

Conceptual

The ramification of the risk management practice in the overall: both operational and financial performance of businesses in the pharmaceutical sector.

Methodological

Empirical research designs, quantitative method of research were implemented. MLR (Multiple liner regression) used as analysis tool.

1.6. LIMITATIONS OF THE STUDY

Time and resource were the basic limitation of the study, which put's the research under the constraint of the study area which is Addis Ababa, Ethiopia. Mostly because pharmaceutical industries are implanted around the city and the research subjected reasonably to focus on other areas of the sector, such us pharmaceutical medicine and medical supplies importer and distributer as well as retail outlets. Lack of additional independent variables mainly controlling predictor variables may be seen as the limitation of the research as well.

1.7. SIGNIFICANCE OF THE STUDY

There is a dearth of study on risk management practices of companies in the pharmaceutical sector operating in Addis Ababa city and how is that impacting the business performances. Hence, there are limited documents on risk management in Ethiopian pharmaceutical business industry. Therefore the research fills the knowledge gap seen in the area and contributes to the

sector by broadening the scope of literature on risk management and performance of pharmaceutical businesses in the town.

Mostly the research will play a crucial role by giving a clear image on how significantly risk management affects the overall business performances of companies in the pharmaceutical business area. Moreover, the study will contribute its part for the growth and development of pharmaceutical sector which directly affects the health, wellbeing and economy of the city in particular and the whole nation in general.

1.8. ORGANIZATION OF THE RESEARCH

The contemplate comprises of five chapters, in the first one, the background of the study, statement of the problem, significance of the study, scope and limitations of the study, general and specific objectives, research questions were included. In the second chapter, literatures within the study area and/or in the research topic are reviewed both theoretically and empirically. In the third chapter, the methodology part of the study shall clearly be detailed and in the last but not list two chapters, data's will be presented and analyzed, in addition the result, discussions, summary, conclusions and recommendations of the study will be presented consecutively and consistently.

CHAPTER TWO

2. LITERATURE REVIEW

2.1. DEFINATION OF KEY TERMS AND CONCEPPTS

Risk is a necessary part of doing business, and in a world where businesses become risk-centric, an organization especially in the 21st century competitive pharmaceutical market environment, has to face, avoid and dodge risks. It is no wonder that many contracts and insurances agreements require solid evidence of good risk management practice (ISO 31000, 2018). Majority of the risks that risk management services deal with variety of sources such as fiscal uncertainties, legal obligations, technology issues, competition, human capital, quality issues, strategic managing blunders, accidents and even natural calamities (Ankit Chadha, 2022).

Risk management is the process of identifying, evaluating, and prioritizing risks followed by integrated and economical application of resources to reduce, observe, and control the probability or impact of unfortunate events or to maximize the realization of opportunities (Sushanta Maiti, 2021). The risk management program consists of four major components: risk identification, risk assessment, risk response, and risk monitoring. All four components are essential. All the above methods should address the mentioned four basic components. Team selection and method selection are also plays a vital role in the risk management process, so care should be taken while selection of risk management team and method.

Risk identification is when a company tries to figure out what risks they might face in their business. This information comes from Levich in the year 2002. This helps companies to avoid possible problems or come up with appropriate solutions. If something bad happens, a business that is ready can make sure it doesn't hurt their money, time, work, or how people feel about them. For new and existing businesses, it's important to know what could go wrong so you can plan and be prepared. We can find out about risks using various methods. To find potential dangers, people look closely at what a company does in its everyday work. Many companies have risks that they can control by accepting them, transferring them, reducing them, or eliminating them.

(ChristopherL.Culp, 2002) Risk assessment is when we think about what might go wrong, how likely it is to happen, and how bad it would be if it did happen. We also decide how much we can handle if something goes wrong. It's also a part of a bigger plan to avoid any problems that could happen. Risk assessment is the process of looking at things that could go wrong in the future and deciding if they are a big enough problem to worry about. We think about factors that might make these problems worse or better, and then make a decision on whether we can deal with the risks or not. Checking how much danger is involved is important to decide if investing in something is a good idea. It can also help find ways to lower the risk. It stops you from getting a big gain if there's a possibility of losing money. Risk assessment helps investors decide if an investment is worth the risk by figuring out how much money they need to make in return. Risk assessment helps companies, governments, and investors predict the chance of something bad happening that could hurt a business, economy, project, or investment. Risk analysis helps investors figure out the danger level of a possible investment. They can use different methods for this.

Risk response means choosing ways to deal with a specific danger in order to get the result you want. As a result, we can't think of risk response by itself. Instead, it should be looked at, comprehended, and put into action as a piece of something larger. When dealing with risks, it's important to go through all the necessary steps to make sure your plan is good and works well. There are usually different ways to lower risks. One type of treatment may not work for every danger. To make sure we find the best solution, we need to look at each problem separately and think about how each solution might work.

When deciding how to deal with risks, it's important to look at different things like the company's plan for dealing with risks, how much money and people they have, and what they want to achieve. You should also think about how much it will cost compared to the good things that could happen. There are different ways to deal with risks: you can either try to avoid them, prevent or reduce the damage they could cause, transfer them to someone else, or simply accept them. We need treatment plans to explain how we will carry out the chosen options. Make a plan with all the info needed: what you will do, when you will do it, what you need to do it, who will do what, how success will be measured, and how progress will be tracked.

Risk monitoring means always looking out for dangers and finding the best ways to handle them; it’s really important because companies need to make sure their safety plans are working well. The goal is to figure out how to keep track of danger. This means making sure the company follows the plan to deal with risks and keeping an eye on it to see if it's working. If anything changes that would affect the risks, it needs to be reported. Also, any security requirements must be met. The organization should coordinate and communicate the activities to monitor risks at all levels. This means sharing information about possible problems that could affect the whole organization, so that plans can be made to deal with them. The organization should think about the gadgets and technology they need to watch out for risks. They should also decide how often they need to check for risks and look for any changes that could affect their plan to deal with risks.

Business performance alludes to what the organization does to progress efficiencies, how the organization plans to exceed expectations against the competition and how the organization plans for long haul; to discover out the holes of execution event (Bittici Turner, &Bengemann, 2000; Agostino & Arnaboldi, 2011). Besides, there are assortment of definitions indorse to the concept of execution. Within the writing there are a few articles that clarify the concept of execution closely related to distinctive variables. (Didier Nove, 2002) talked about that the execution contain in accomplishing an objective that were given to you in conjunction of the capacity of a company or a office to attain its or their destinations and anticipated comes about; it is measured utilizing subjective and/or quantitative key execution pointers. (Bittici Turner, &Bengemann,2000; Agostino & Arnaboldi, 2011) alludes commerce execution as what the organization does to progress efficiencies, how the organization plans to exceed expectations against the competition and how the organization plans for the longer; term to discover out the holes of execution event.

2.2. THEORETICAL LITERATURE

Fear of the future is amongst the most important reasons why enterprises do not engage in business (cacciotti G, Hayton JC, Mitchell JR, GiazitzogluA, 2016). In this regard the review concretely examine the corpus of theory that has a confined data on how pharmaceutical companies successfully implement risk management programs, to identify and manage potential risks. Developing number of ponders despise the inclination of supervisors to constrain chance administration to classical positivist demonstrate instead of with respect to chance administration as an continuous and socially built handle (Beck, 1992; Perry and Lindell, 2003; McEntire and Myers, 2004; Hansson, 2005). A few thinks about too emphasize that the concept of hazard may be a build that's not straightforwardly perceptible and can subsequently have different implications; reality gives a subtle and complex blend of clues, signs, data, relationships and partial prove that don't fit effortlessly into the classical definition of chance. There's hence continuously a component of subjectivity within the definition of hazard (Malenfant, 2009).

In addition, due to the long advancement lead-time, expanding fetched and tall disappointment rates for the sedate advancement. It’s critical to successfully oversee the dangers in a pharmaceutical company. Most of the pharmaceutical risk administration is ordinarily centered on pharmacovigilance/ sedate security issues counting but not restricted to location, signaling and remediation and understanding the unfavorable impacts of drugs (Wang, J., Lin, W. and Huang,Y. 2010). A few of the study on pharmaceutical hazard administration like Saari (2004) utilized the chance extraordinarily outlined chance administration approach to the improvement. Others have created pipeline or portfolio administration approaches.

Moreover, some authors say that risk management for pharmaceutical businesses cannot be the same as before because the types of risks have greatly changed and cannot be understood with just probability. Some writers say that diseases like SARS and H1N1 are spreading all over the world again. They think that we need to be better prepared to handle the risks and that we need to work together internationally to do that. More and more systems are becoming closely

connected. If one system breaks down, it affects all the other connected systems. This is causing new risks that cross borders (Shrivastava, 1994; NoJi, 2001; power, 2009).

2.2.1. Risk management practices of pharmaceutical business sector

Healthcare organizations have to manage risks to their products to make sure they are safe and good quality. This is a requirement set by the government. It's important to do this throughout the life of the products to make them as beneficial as possible and to balance out any risks. The pharmaceutical industry thinks that taking care of patients and their business is important. They do this by managing risk in the way they make medicines. All things have dangers connected to them, such as the things we make and the ways we make them. It's important to keep good quality of the product from start to finish. In the past, people used informal methods like looking at trends, checklists, flowcharts, and reviewing changes to figure out how risky a product's quality and process were.

However, regulatory agencies use management tools and statistics to make it easier for companies to manage risks and improve quality in their industries. A program that helps avoid problems begins by finding out what could go wrong with a product or how it's made and sent out. Effective quality risk management helps make better decisions when a problem with product quality occurs. It should have planned ways to help make good decisions based on science and lessen danger.

The FDA wants to make sure food and drugs are safe. They use a program called risk management to help them do this. Risk management is a plan to make things safer by using different tools. The FDA wants the people who make things to think about how to make them less dangerous. This might include things like putting warnings on the product label, studying the

risks of using the product, and taking special steps to make it safer. The institution wants the risk management team to follow a simple method to understand the good and bad things about a product, develop ways to reduce the bad things, check if these ways work, and change them if needed. Risk management is about finding ways to deal with potential problems. Some ways to do this include using charts and checklists, analyzing how things might fail and what the consequences could be, looking at various causes of problems, and evaluating potential hazards. We can also use statistics to help us understand and manage risks.

Pharmaceutical companies have a plan to manage risks. This plan has four parts: identifying risks, assessing risks, responding to risks, and monitoring risks. This information was written by Levich in the year 2002. All four parts are important. Every method listed should include these four main parts. Choosing the right people and ways to manage risk is very important, so be careful when you do it. FMEA is the best way to manage risks in the pharmaceutical industry because it is more dependable, improves quality, and makes things safer. It can also save money by reducing development time and waste.

In simpler terms, there are various areas in a pharmaceutical company that need to be managed to avoid risks. These include keeping good records, making sure employees are trained well, addressing quality complaints, conducting audits for compliance, checking equipment regularly, managing materials effectively, and ensuring proper packaging and labeling.

When we use a risk based approach, it helps us make decisions in a consistent way. This approach also helps us decide where to put resources and keep patients safe. Using risk management in the pharmaceutical industry can help reduce the number of problems or make them less bad by always using certain methods and looking at things regularly. This comes from a book or article called "Vesper" that was published in 2006. Risk management helps organizations achieve their goals.

Businesses are created to benefit the people who own them or invest in them. The mission statement explains how much benefit they plan to provide. Just seeing things isn't enough to make money for a company. Some companies use advanced ways to manage risks in order to get

the benefits they need. The strategy is about planning the vision and benefits for the business, while the tactics are about making tools to manage risks and achieve the strategy. Risk management can be unsuccessful when the overall plan does not match how the plan is actually being carried out. This happens when the goals for managing risks are not clear. To make sure risk management helps the business, we need to manage the space between strategies and tactics carefully and ahead of time.

This means problems with machines or software, limitations with making money, difficulties with leading people, and relying on factors outside of one's control. Good companies understand that taking risks can lead to rewards and do not try to avoid uncertain situations. There is no such thing as a completely risk-free pharmaceutical business, and in fact, it's not good to have zero risk because the more risk a company takes, the more benefits it can get. Risk and uncertainty are not the same thing. There are some things that might be uncertain, but they won't impact the goals we have set. So, they are not considered risks. Managing risk is important for pharmaceutical companies to do well. It's all about making sure that goals are met, despite unpredictability and potential danger.

2.2.2. Pharmaceutical businesses risk management indicators

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Over time, risk management has grown up and become a well-established way of dealing with possible problems. It has developed over many years into a mature discipline with its own processes, tools and techniques, and with consensus over the main concepts and practices. Nevertheless pharmaceutical manufacturers, importers, wholesalers and retail outlets still fail to

meet their objectives and businesses are deprived of the expected and needed benefits, despite the theoretical principle that risk management should contribute to business success. Why is risk management failing to live up to its potential (Charette 2002) At least part of the problem lies in the scoop with which risk management is commonly applied, where two key limitations exist:

Firstly, in most cases, the risk process concentrates on risks to processes, performance and people, ether addressing risks related to technical functionality, or tackling issues of health and safety. The focus is almost entirely tactical, and does not consider strategic sources of risk which might affect ether the risk management practice itself or the wider business (Christopher L. Culp, 2002).

Secondly, the limiting in the way in which risk management is typically implemented is to restrict scope to dealing only with uncertainties that have a potentially adverse affect, this ignores the existence of upside risk, or opportunity, which can be defined as risk with positive impact. (Hamid Mollah, Harold Baseman & Mike Long, 2013) many pharmaceutical organizations are beginning to extend the risk process to deal equally with both opportunity and threats seeking to maximize the benefits as well as to minimize the downside. The current scope of risk management to deal only with tactical threats in the pharmaceutical sector arena reduces its ability to tackle the strategy gap outlined above, since the risk process only conceders one side of the equation.

The one sided focuses on threats also denies pharmaceutical businesses the chance of exploitation opportunities through the risk process, and results in a one- way street where the only option is project failure to a greater or lesser extent. Including both threats and opportunities within the risk process, increase the chance of meeting business targets on the “swing and roundabouts” (or under and over) principle (Ruskin 2000). For risk management achieves its potential of bridging the gap between strategic vision and tactical business performance, two modifications are proposed the scope of the typical risk process in order to broaden the existing focuses on tactical threats alone. The fist change is including strategic elements, and the second is to include opportunities.

(Greg Shields, 2018) Extending the existing risk management approach to cover strategic risk is a simple task of building on what is currently in place. The typical risk management process has the following steps, which are undertaken iteratively. Risk management planning; define the scoop and objectives of the risk process, describing the techniques and tools to be used, stating the thresholds of acceptable risk to various stakeholders, dealing roles and responsibilities etc.
Risk identification elaborates exposing and recording all foreseeable risks which could affect objectives, together with information on their causes and possible effects. Risk assessment estimating the probability of occurrence and severity of impact for each identified risk and prioritizing risks for further attention, grouping risks into categories to identify hotspots of risk exposure or common causes, and analyzing the combined effect of risks on objectives using tactical models. Risk response development; considering how to respond to each individual risk and to the overall risk exposure, selecting a strategy which is appropriate, achievable and affordable, allocating each response to an owner. Risk monitoring; ensuring that agreed actions are implemented effectively, monitoring the effect on risk exposure, and communicating risk information to stakeholders with appropriate detail and frequency.

If pharmaceutical business sector risks is defined as ‘an uncertainly which if it occurs would affect one or more objects”, it becomes possible to define various types of risk by reference to the different objectives affected (James L. Vesper, 2006). So tactical risks are uncertainties that could affect tactical objectives, and strategic risks are uncertainties that could affect strategic objectives. If risk defined as “an uncertainty which is it occurs would affect one or more objectives”, it becomes possible to define various types of risk by reference to the different objectives affected. So tactical risks are uncertainties that could affect tactical objectives, and strategic risks are uncertainties that could affect strategic objectives. The same is true of pharmaceutical risks to reputation, environment, safety, programs etc. The primary requirement for implementing strategic risk management is therefore to identify those strategic objectives which might be affected by uncertainty, for example the benefits defined in the business case, or stakeholder’s needs, or corporate goals. The other required change to the tactical risk process to enable it to be used for strategic risk management is identification of roles and responsibilities at an appropriate level (Christopher L. Culp, 2002). Where pharmaceutical businesses tactical risks might be managed by the function manager, strategic risks are the responsibility of senior

management. It is therefore necessary to consider who is suitable to be the risk process owner as well as individual risk owners at the strategic level. With these modifications, the standard risk process can be applied at a strategic level, allowing identification, assessment and management of strategic risks.

It only requires a small process change to include upside opportunities in the typical risk process, although a more significant change may be required in the attitudes and habits of the people involved, who often find it hard to escape the threat focused mentality associated with traditional approaches to risk management (Markus Rudolf, Michael Frendel & Ulrich Hommerl, 2005). This change to include opportunity within the definition of risk, and by implication to include opportunity management as part of the risk process, is increasingly being adopted across the risk practitioner community and in various industries, and is being reflected in various risk management standard documents published by national and international organization as well as relevant professional bodies, although it is not universally accepted by all risk practitioners.

2.2.3. Pharmaceutical businesses performance concept

Performance is doing something in the right way or doing something successfully using knowledge as distinguished from merely possessing it (Global enterprise monitor 2004). According to Martin (2010), performance is characterized simply in terms of production, such as qualified objective or profitability. Consistently, pharmaceutical performances quantitatively measure the performance, cost, quality, and efficiency of a biotech company's development of drugs for healthcare services and patient consumption. Pharmaceutical measures included in key pharmaceutical performance indicator reporting come from research, development, and manufacturing, marketing, and distribution functions. This can measure critical, up to the moment pipeline issues like drug and patient morality rates or something as small as the cost of drug packaging over time.

A pharmaceutical performance indicator is a way to measure how well a pharmacy is doing. KPLs are things that help a business reach its goals. In medicine, companies try to keep people healthy and make money at the same time. To understand how well a medicine works, we need to know what makes a good indicator. Key pharmaceutical indicators are a way of communicating information, and it is easier for people to understand and act on them when they are brief, clear, and applicable. If a company doesn't communicate well, all its efforts, even the best ones, will be useless. Key performance indicators are used to help people make better choices, provide better service, and build a strong and lasting business.

2.2.3.1. *Financial risks*

(Jimmy Skoglund & Wei Chen, 2015) Every business, regardless of its type, requires a study and reliable financial backbone to grow and thrive. That is why financial metrics are often common across industries including pharmaceuticals industries. There are hundreds of pharmaceutical business performance measures, but it is paramount to start with the most basics and only expand if the operation demands it. The most common and major measures that propel financial factors are:

Operating cash flow; - this metric is not unique to the pharmaceutical sector, but it’s one of the most important and most basic financial factors for any organization. Operating cash flow measures the amount of cash generated by the daily business of the pharmacy. (Tony Merna & Faisal F Al-Thani, 2008) A positive operating cash flow is an indication of proper business handling, whereas a negative operating cash flow signals a financial problem and a possible need for external financing. Operating cash flow provides valuable information about the financial health of pharmaceutical businesses.

Gross profit margin; - as the name suggests, this key pharmaceutical performance indicator highlights the profitability of a pharmacy. Even though making a profit might not be the ultimate

goal in the pharmaceutical sector, without making a surplus, it is difficult for any business to stay afloat.

Operating expenses; this financial factor for the pharmaceutical industry is another common metric among all industries. It includes the cost of equipment, inventory, payroll, insurance, lease, and any other costs associated with running a pharmacy. By reducing operating expenses, a pharmaceutical firm can gain a competitive advantage. However, reducing this metric too much could sacrifice the quality of the service provided. A balance must be found to allow the pharmaceutical companies to prosper without weakening its integrity.

Average revenue per customer; - this pharmaceutical metric measures the amount of money that each customer brings to the firms. This factor offers insight on the growth potential of the business. If the pharmaceutical firm knows the average revenue per customer, it can predict revenue growth for each additional patient or even justify an acquisition.

2.2.3.2 Operational risk

Management and organizational culture

Executives and managers play a significant role in any entity including pharmaceutical firms. They are the ones who come up with decisions and strategies to achieve the business' goals. They are also the ones who shape the company's culture and drive teams to accomplish their tasks (Neil Doherty, 2000). Managers have a direct influence on how employees perform. How they treat and manage their teams' ay impact business results and performance. Incompetent managers may create a toxic work environment where employees feel oppressed, negatively affecting their performance. Qualified managers, by contrast, are good at keeping employees motivated and engaged, which makes them more productive.

Operational efficiency

(James Lam, 2014) Operational efficiency encompasses all the activities happening inside the business, from procurement to warehousing and storage to production to logistics. It involves all

the process and procedures that lead to the final product and help the company achieve its goals. Operational efficiency has a direct impact on your business's performance. The better the operational efficacy gets the greater profitability will be. Analyzing procedures to minimize process failures and wastages are also crucial. In addition a high quality and fully functional infrastructure ensures employees perform their tasks quickly and efficiently.

Human resource

Employees are either an asset or a liability, depending on their skill sets, work ethics, and attitudes towards work: they are either a strength or weakness in the organization (James L. Vesper, 2006). The way they perform tasks and interact with each other can affect business performance. Moreover, employs innovative approach and/or the process of introducing new ways of doing things, helps pharmaceutical businesses more productive. It also reduces operational costs and increase turnover and production.

Economic and political spheres

These factors comprise changes or forces that arise from the economy and policies the government pass (Greg Shields, 2018). The economy affects pharmaceutical business sectors in multiple ways depending on the contributing factors. For instance an increase in interest rates reduces the company's ability to acquire loans, and an increase in taxation lowers the profits. A good and stable economy and political system is favorable for pharmaceutical businesses.

Competitors

Competition can have both positive and negative impacts on healthcare provider companies' performance (Glenn Robert Koller, 2007). On the bright side, it helps make businesses more innovative and less complacent. It can also lead to better customer service. The downside, however, is that competition decreases market share. In addition, it causes a reduction in demand per business since the customer has plenty of options. Therefore, to remain competitive a pharmaceutical firm may have to lower its prices or offer promotions and discounts.

2.3. EMPIRICAL LITERATURE

According to empirical evidence, Hafzuddin- Syah and Rubayah (2019) researched the effect of risk management practice on performances of companies: results from the study show that risk management has a positive and significant association with performances of different business sectors. Chiara et al (2019) researched on rethinking risk management in pharmaceutical firms. The purpose of the study is to analyze the management of risk. The study adopted a multiple case study research design. The findings revealed that the risk management process cannot be always formalized but an unconscious risk analysis is always carried out. The study also determined that risk is an integral part of the decisions in pharmaceutical companies. The influence of risk assessment on performance of enterprises in Kenya by Peninnah (2018) also revealed that risk assessment is a critical aspect of the risk management process and that is why most enterprises fail to properly assess the risk that is facing their organization. Aforlabi and James (2018) research on risk management operations in the Osun state of Nigeria. The study employed the liner regression to analyses the data which revealed a significant relationship between risk management and company's performance.

Thus, within organizational and sociological scholarship on risk management there is a division between those who promote the efficacy of particular practices of risk management and those who suggest that risk management is largely a ceremonial act of organizational legitimization. On the one hand, case studies of less risk level organizations have led to claims that successful risk management is possible when an organization establishes an overarching culture (Reason 1997): placing efficient risk management protocols as a first priority, developing an alert awareness of the business environment and anomalies within it, and focusing on potential failure. On the other hand, though sociological analysis of risk management has gone beyond risk management headlining risk management to broader social and institutional changes and concluding that risk management is an exercise in legitimacy rather than an efficacious practice.
Taking risks is a big part of the pharmaceutical industry, but it has become even more important because of all the changes happening. You need to take risks to do well. Thinking carefully about

potential problems with strategy is important when a company is trying to change its business model, products, customers, or markets. (Jimmy Skoglund & Wei Chen, 2015) There is more danger in a company's money situation when their income or expenses change. Compliance risks are a big danger for pharmaceutical companies. It's even harder for them because they have to keep up with new laws, changing ways of understanding old rules, and more people making sure they follow the rules.

ISO 361000 (2018) provides more strategic guidance and places more emphases Make sure leaders are involved and that risk management is part of how the organization works. This means making sure there is a plan to manage risks, giving people the power and responsibility to do so, and making sure they have the resources they need. The new rules say that controlling and managing risks should be included in how a company is organized, how things are done, what goals they have, and what they work on. This means that when managing risks, it is important to focus on creating value. It also includes things like always trying to improve, including everyone involved, and taking into account different cultures and people. The way it is taught has been simplified to work for lots of different situations and to make sure it gets feedback so it can improve. The main goal is to explain risk management in simple words, so the reader can understand it easily.

Studies show that the way pharmaceutical companies handle risks might not be much better than it was in 2006, when KPMG wrote about it. Businesses are more concerned with following the rules than looking at all the possible types of risks they might face as a whole organization. People agree with KPMG's worries that risk management methods are not always planning ahead, but for now, changing them is not a big concern. Many of the people surveyed are not making risk management a big priority in their business strategies. They are only thinking about how to prevent negative consequences, instead of considering the potential benefits and risks.

It's not surprising that people focus on avoiding risks because if they don't follow the rules, they could face big problems like getting in trouble with the law or hurting their reputation. The people who answered the questions said that it's important to find and deal with risks before they happen, and to help managers make good decisions. But it's hard to convince companies to use

risk management with their main plan, and there aren't many good examples of how it can make a business more valuable.

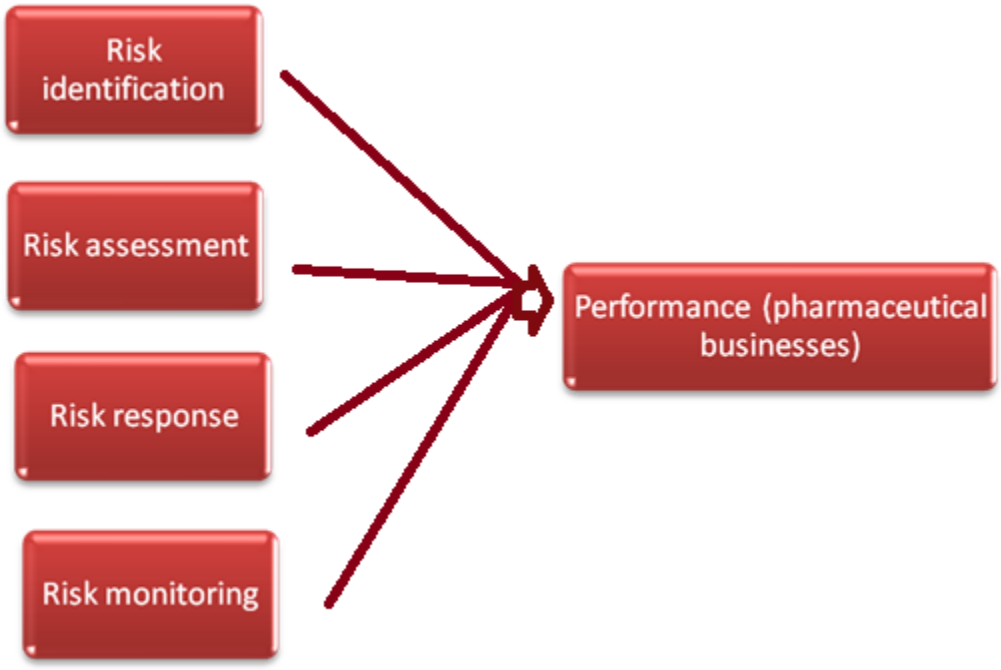
Though, in recent years, people in the drug industry have been interested in using technology to track bad things that happen. This was found to be a good thing in a study. Investing in technology helps to automate risk management controls and reduce mistakes made by humans. This also leads to better documentation. More and more companies in the pharmaceutical industry are realizing that using advanced technology comes with risks. This includes manufacturers, wholesalers, and retail stores. As machines get more complicated and pharmaceutical companies rely more on them for daily operations, any malfunction can have a devastating impact

2.4. CONCEPTUAL FRAMEWORK

According to the research that's been done, a conceptual framework is a way to show how different things in the study are related. The study looked at how being careful and preparing for risks affects how well pharmaceutical companies do. (Sidny Apaloo, 2022) Risk management

has different parts like identifying risks, assessing them, making plans to deal with them, and monitoring them. These parts are like reasons that can help explain how well a business is doing.

Fig.2.1 – Conceptual framework



2.5. RESEARCH HYPOTHESIS

Risk management enables the organization to stabilize its earnings and enhance company's performance; Risk management reduces organization surprises and loss by allowing managers to effectively identify events that cause such surprises and volatilities (Hoyt and Liebenberg, 2008). Hence, it enables pharmaceutical businesses to stabilize its earnings and enhance company's

performance. Accordingly, stability in profit results in reduction in business risk, which positively affects the going concern of the business. Researchers have attempted to work out solutions to managing risk and have proposed that risk management usually takes different stages: occurrence, pact, and control (Halman and Keizer, 1994). This implies that, in the case of pharmaceutical business sector managers need to first, identify and assess the risk factors, second, take response to reduce the likelihood of a bad outcome, and third monitor and minimize adverse impact. Thus, the hypothesis is made as follows:

HI: There is a positive and meaningful relationship between risk identification and pharmaceutical company's performance.

In pharmaceutical businesses identifying risk helps to diagnose the possibly consequential relationships between the phenomenon and the outcomes of interest, and to help structure the risk based on their causes and levels of predictability.

H2: Implementing risk analysis process leads to better performance of pharmaceutical firms.

The level of pharmaceutical companies' proficiency and risk assessment approaches may also be related to the firm's level of performance. Indeed, (Colquitt et al., 1999 and Ellul and Yerramilli, 2012) examined the link between risk assessment and firm's performance.

H3: Implementing risk response process leads to better performance of pharmaceutical firms.

(Pagach and Warr 2011) proper functioning of the risk response systems implemented by pharmaceutical firms plays an important role in ensuring firms' effective management. Therefore, the existence of an authentic risk response system can have a positive impact of performance.

H4: There is a positive relationship between risk monitoring and pharmaceutical company's performance.

The existence of a risk monitoring committee within pharmaceutical firm may have a positive relationship with the level of performance. The mere presence of a risk monitoring committee

demonstrates a firm's commitment to improving its risk related leadership structures (T.J. Andersen, 2008, Farrell and Gallagher, 2019).

However, how to identify and analyze pharmaceutical risk in a parsimonious model is a challenging task. Doering and Parayre (2000) developed a risk management diagnostic method for how to manage pharmaceutical business risk. Pharmaceutical business is a process, in which medicines or medical devices and technologies are materialized, managed, moved to market and finally delivers to the end user. Risk identification, analysis, response and monitoring are the four most indispensable risk management process components. Success of pharmaceutical companies is determined by both external influences and internal circumstances in which these factors interact. Consistent with previous studies (e.g., Doering and Parayre, 2000; Keizeret al., 2002), we analyze pharmaceutical firm risks using this four dimensional frame work. The framework emphasizes that firms can identify, analyze, respond to and monitor the major risks in the sector.

CHAPTER THREE

3. RESEARCH METHODOLOGY

This part outlines the methodology and techniques used to fulfill the objectives of the research set out in the introduction. It contains the research design, the research type, data collection techniques, population and sampling techniques, research instrument and analysis method.

3.1. RESEARCH DESIGN AND APPROACH

A research design is a blueprint of how a researcher intends to conduct a study (Mbambo; 2005) and propose that research design discusses to the guideline researchers follow to complete their study from beginning to end. According to Creswell (2009), there are three research designs. These are Qualitative, Quantitative and Mixed designs. For the sake of this study, quantitative data has been collected through questionnaires. Moreover, minutes and archives documents from different sources. In order to ensure that the research design is consistent with the research objectives, the study used an empirical approach.

3.2. DATA TYPES AND SOURCES

The research aim to analyze the relationship of risk management in the overall performance of pharmaceutical businesses operating in Addis Ababa which is the capital city of the nation: in order to achieve the purpose of the study, the objectives will be collected and will be used by both primary and secondary data. Data will be collected in two ways.

Firstly, a questionnaire will be distributed and filled among the concerned bodies and carefully selected employees from the selected businesses in all part of the business category. Secondly, documents will also be used to obtain various perspectives on the research work. Due to the various natures of the sector and the quantity of each particular category of businesses, stratified random sampling will be used.

3.3. STUDY POPULATION AND SAMPLING

Thus, according to Salkind (2012) a population is a group of potential participants in which you want to generalize the results of a study, while a sample is a subset of the population. The population of this research will be all pharmaceutical businesses who are currently working in Addis Ababa. The study is going to be conducted in pharmaceutical manufacturers, importers, wholesalers and retail outlets; accordingly the target population of the study being 08 pharmaceutical industries, 83 importers & wholesaler and 249 retail outlet firms.

To generate the sample size of the research under consideration, the process of stratified random sampling used. This is because; each unit of the population has an equal chance of being drawn in the sample. This helps the research to get the right amount of representative of the population. Stratified random sampling is used considering that all pharmaceutical companies working with different work philosophy and leadership quality. This make it easier to analyze the right data based on the right pharmaceutical company experience that adopts versatile risk management techniques.

By using sample size calculator with a 95% confidence level, 50% population proportion, and a margin of error (confidence interval) of +/- 5%. 309 or more sample size and/or measurements are required. In addation, by using Yemane's equation (Yeman, 1967), at 95% confidence interval;

$$n = N/ 1+ N (e)^2$$

$$n = 1567/ 1 + 1567 (0.05)^2$$

n= 319

Where: n – Sample size, N – population size, e – level of precession

Therefore, form the digital calculator and the Yeman's equation, one can conclude that a minimum of 319 participants are needed. However, to find a common ground for the different outcomes of the two sample sizing options and also to further push and enhance the quality the sample size, 340 respondents were being part of the research.

Stratified random sampling

The word "stratified" comes from "strata," which means groups each group has things that are alike. We choose a group of data from each category to study.

This technique is used to make sure that the group of things being studied has a little bit of everything from the larger group that it comes from. This mixture makes sure that the sample reflects the entire group of people. Sorry, there is not enough contexts to rewrite this text in simpler words. In simple terms, Thompson (2012) found that dividing a diverse group into smaller similar groups is a good way to select a representative sample for research. Taking samples from different groups within the population is a good way to represent the whole population. This makes analysis fair, and results accurate and reliable. It saves time and money since studying the entire population can be too hard and expensive. This technique makes it easy to compare different groups within the population since they are separated by their unique features.

Stratified random sampling formula

nh = (Nh / N) * n

Stratified sampling = total sample size/ entire population * population of subgroups

Calculation of the sample size for the Retail pharmaceutical businesses:

Number of samples = (340/1567) * 1148

Sample size of retail pharmaceutical businesses = 249

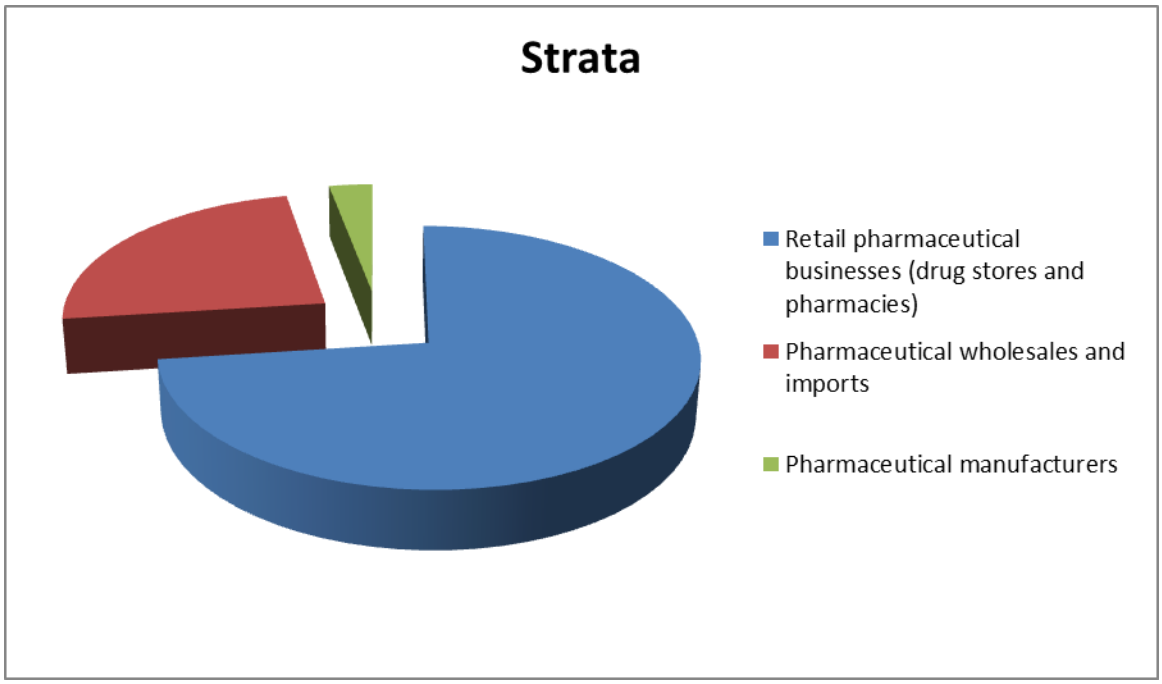
Similarly, we calculate the sample size of all strata of pharmaceutical business sector using the above formula as seen in the table below.

Table 3.1samples using stratified random sampling

Strata	Total number of pharmaceutical businesses in strata	Number of pharmaceutical businesses in sample
Retail pharmaceutical businesses (drug stores and pharmacies)	1148	(340/1567) * 1148 = 249
Pharmaceutical wholesales and imports	382	(340/1567) * 382 = 83
Pharmaceutical manufacturers (including extemporaneous and medical supplies manufacturing)	37	(340/1567) * 37 = 8
Total	1567	340

Source: own survey, 2023

Fig. 3.1 pie chart of strata



Source: own survery, 2023

3.4. METHODS OF DATA COLLECTION

For collecting data questionnaires were used, based on the research question mentioned before and were adapted from Apostolos, Giovanie (2015), Joana (2016), Samuel Assis (2017), Elin and Linn (2012). The questionnaire allowed the research to find out the relationship between risk management practices and companies performances. The questionnaire contains closed-ended Likert scale questions, which are best, suited to the research questions and objectives because they provide an efficient method of collecting responses from a large population prior to quantitative analysis. The central premise of using a closed-ended questionnaire, according to Zikmund et al. (2009), is that it should be statistically analyzed a desire and quicker for respondent to answer. This supported the researcher in collecting employee's opinion about the research variables in a very efficient and reliable way.

3.5. METHODS OF DATA ANALYSIS

Thus, Quantitative methods emphasize objective measurements and statistical, mathematical or numerical analysis of data collected through polls, questionnaires and surveys or by manipulating pre-existing statistical data using computational techniques (labaree, R.V 2009). Multiple Linear Regression (MLR) Analysis is the core analysis in researching to test the correlation between the dependent variable and a few independent variables rather than a single variable (Nimon & Oswald, 2013). MLR will be used to find R as Pearson correlation, R Square, value, and significance test of the variables. The purpose of conducting MLR analysis is to examine the magnitude of the impact of each determinant factors type of the ridesharing business towards the business (Loewen & Plonsky, 2016). Since the conceptual model has many independent variables it is appropriate to use this statistical analysis technique (Tec, 2013)

3.6. MODEL SPECIFICATION

Model specification means deciding which factors should be part of or left out of a regression equation. Usually, when making a regression model, it is better to use theories rather than experimental or method-based factors when deciding how to create it.

A multiple regression model is an idea about how one or more things that affect something else are related. We can see that there are three steps in regression analysis: first, you decide on a formula; then, you calculate the variables in that formula; finally, you figure out what those calculations mean. Writing down details about the model is very important to help figure out and comprehend everything in the research process. So for this study and all the guesses it had, they came up with these models.

H1: Implementing risk identification process leads to better performance of pharmaceutical firms.

$$Y = \alpha 1 + \beta 1X1 + \varepsilon$$

$$p = \alpha 1 + \beta 1RI + \varepsilon$$

Where: *P = performance, RI = risk identification, ε= random error*

H2: Implementing risk analysis process leads to better performance of pharmaceutical firms.

$$Y = \alpha 1 + \beta 2X2 + \varepsilon$$

$$p = \alpha 1 + \beta 2RA + \varepsilon$$

Where: *P = performance, RA = risk analysis, ε= random error*

H3: Implementing risk response process leads to better performance of pharmaceutical firms.

$$Y = \alpha 1 + \beta 3X3 + \varepsilon$$

$$p = \alpha 1 + \beta 3RR + \varepsilon$$

Where: *P = performance, RR = risk response, ε= random error*

H4: There is a positive relationship between risk monitoring and pharmaceutical company's performance in companies having a system in understanding and monitoring strategic, market, competition, human and quality risks.

$$Y = \alpha 1 + \beta 4X4 + \varepsilon$$

$$p = \alpha 1 + \beta 4RM + \varepsilon$$

Where: *P = performance, RM = risk monitoring, ε= random error*

3.7. ETHICAL CONSIDERATION

Participant informed consent should be founded on the notion that engaging and being part of a research is optional as addressed by Holloway and wheeler (1996). Therefore, the participants were promised that their answers would only be used for school research and no one else would know what they said. We made sure to tell people why the study was important and asked if they wanted to answer our questions before giving them the survey. This was a big part of how we collected information. Still, the people involved could choose to stop or end the process anytime. The people in the survey didn't have to say their names and were promised that their information wouldn't be connected to them.

3.8. VALIDITY AND RELIABILITY

Checking the validity and reliability of data collecting instruments before providing to the actual study subject is the core to assure the equality of the data (John et al, 2010). Keeping this fact in mind both the validity and reliability of the research instruments are elaborated as follow;

Validity

Bryman and Bell (2007) say that validity means that a tool measures what it's supposed to measure. A measure can only be accurate if it is based on clear definitions of the thing it is trying to measure. There are different ways to check if something is true. These ways include content, face, internal, and external validity. We made sure that the questions were easy to understand by using simple words. This helped keep the content accurate. The survey had questions about how sharing knowledge and practicing risk management affects how well people do their jobs.

The survey has enough people answering to give us useful information about the whole group. This means the study is valid. Before giving out a survey to people, we tested it to make sure it is a good survey and asks the right questions. An advisor checked it to make sure it measures what we wanted to know. Also, we used questionnaires that other people have used before in their studies. In summary, the tool used for this study was reliable and consistent across many tests.

Reliability

Reliability is the extent to which measurement of the test are repeated, this implies that measuring instrument results should be consistent when the instrument is repeated. A researcher who designs a measuring instrument must ensure that the instrument gives similar, close or the same results if the study to which the instrument is applied is replicated (Creswell 2014).. The most common measure of reliability of a research instrument is the Cronbach Alpha. The Cronbach's Alpha tests the internal uniformity among the study items. Literatures indicate that for a research in business and other related studies, an alpha value of greater than 0.7 is appropriate.

As shown in table below (.876), results indicate that all alpha values are beyond the acceptable range. The minimum alpha value that was obtained for risk management reciprocation on performance of pharmaceutical firms was 0.807 for the dependent variable, followed by 0.810 and 0.826 for risk analysis and response respectively. The maximum alpha value that was obtained for risk monitoring was 0.859, followed by 0.827 for risk identification. The result showed strong reliability of the variables.

Table 3.2- reliability statistics

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.856	**.858**	**5**

Variables	Cronbach’s alpha if item deleted
RI	0.827
RA	0.810
RR	0.827
RM	0.859
P	0.807

Source: own survery, 2023

CHAPTER FOUR

4. DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter is sought to transform heaps of raw data into some meaningful facts. The findings presented in are instigating from the survey questionnaires. The study employed qualitative data method in presenting a comprehensive picture about the ramification of risk management in the performance of pharmaceutical business sector; operating in Addis Ababa, Ethiopia. The research relied on the primary data collected by the use of structured questionnaire and the collected data was coded into statistical presentation software (SPSS) version 29 for analysis and presentation.

Response rate

According to Babbie (1990) a response rate of 60% is good, 70% very good and 50% adequate for analysis. Similarly AAPOR (2011) explained that a response rate of over half is good while over 70% is very good. For the purpose of this specific research 340 questionnaires were distributed by assuming to collect all of them filled without missing any question. Finally, a total of 310 questioners (91.2%) were obtained and used for analysis. The remaining 30 questionnaires could not be incorporated in the analysis, 16 questionnaires (4.7%) were not returned and 14quesionaires (4.1%) filled with missed questions. Thus, the non response rate, including unreturned and partially filled, is 8.8%.

4.2 Demographics

Demographic information was collected from the respondents through questionnaires. The demographic information of the participants includes gender, age, education level, profession and position to see the demographic composition of respondents in the study area. Accordingly charts below presents frequency and percentage of background variables of participants involved in this study.

More than half of the participants (51. 9%) were between the ages of 30-40. Almost one-third (28. 1%) were between 20 to30: while less than one-fifth (18. 7%) were over 40. Only small percentages (1. 3%) were below 20 years old. Out of 310 people in the study, 34.5% were girls and 65. 5% were boys more than half of the people who participated in the study (70%) had at least a bachelor's degree in pharmaceutical science.

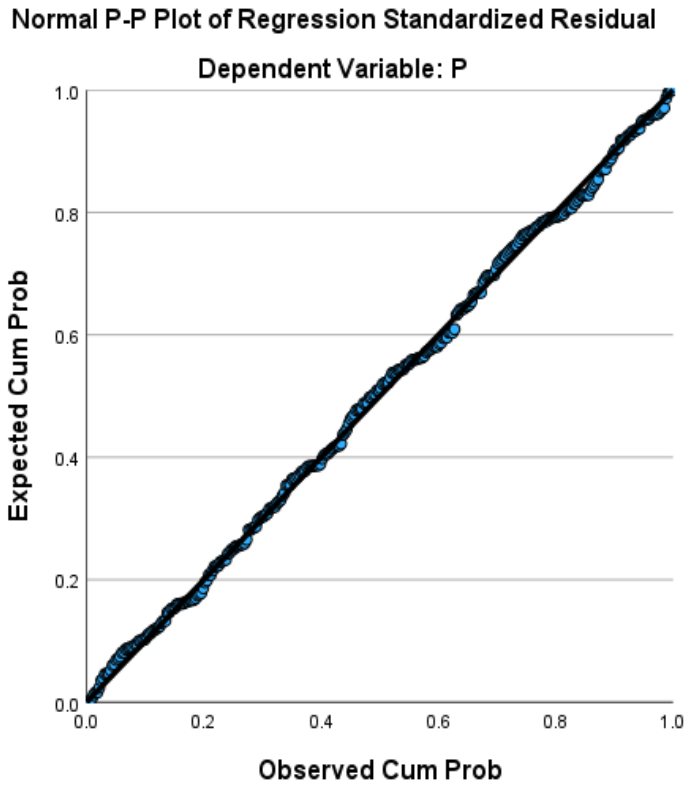
The next biggest group (21%) of people had finished college with a degree in business. Out of all the people, only 5.2% had gone to college to learn leadership skills and the last 3. 9% had studied economics. Out of 310 people, 17.4% were bosses Also, 26 out of every 100 people surveyed had a high-level manager job, while the other 21. 6 out of 100 had management jobs that required technical skills. Over half of the people (58. 4%) were head pharmacists.

4.3 Regression diagnosis

4.3.1. Linearity test

Linearity means that the result depends on how much the independent variables change in a straight line. If the connection between different types of information is simple and straightforward, then a certain way of figuring out the connection can work well to predict the result. According to Keith, (2006) if the relationship between variables is not straight, then the answers we get from doing statistical analysis could be wrong and misleading. This includes different ways of measuring how strong the relationship is between the variables, how accurate our predictions are, and how confident we can be in our results. The researchers checked how the different things in their study were related to each other. They found that all the relationships were straight enough to be tested.

Fig. 4.1 – normal P-P plot of regression standardized residual



Source: own survery, 2023

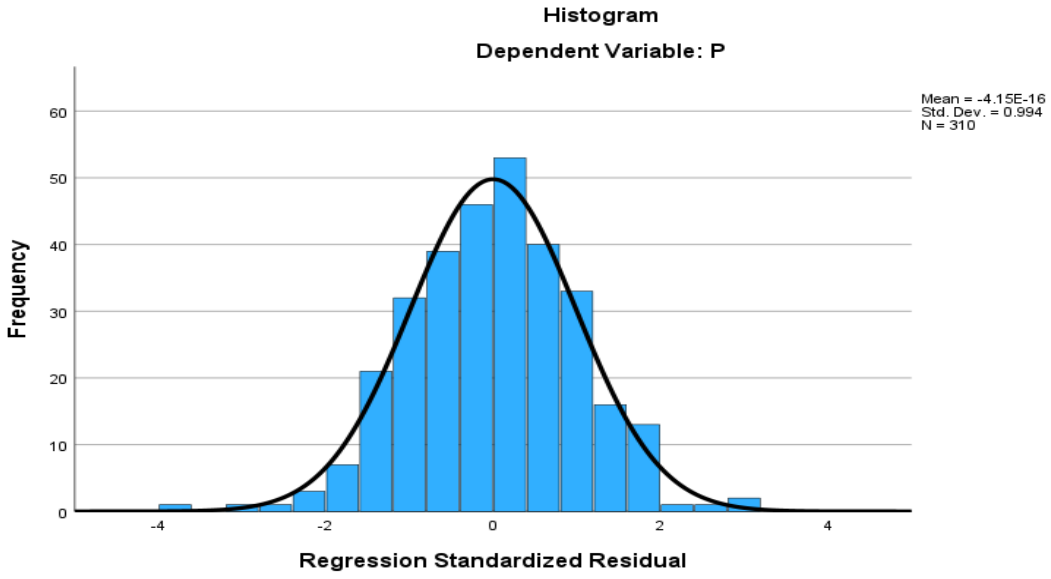
4.3.2. Normality test

As part of analyzing the data, any unusual values in the errors have had checked. Haire and others (2010) say that normality means how much the sample data follows a normal pattern. We checked if the objects were normal by using skewness and kurtosis. Skewness means how much a random thing is not the same on both sides.

To test the normality of the objects found, skewness and kurtosis were used. Skewness is a measure of the asymmetry of a real valued random variables distribution of probability. Kurtossi, on the other hand, was defined by Landau and Everitt, (2003) as the peaked or flatness of the distribution in comparison to the normal distribution. Skewed values may be positive, negative, or zero. The value of skewness, which is zero, implies a perfectly symmetrical distribution, while the positive value of skewness indicates that the tail is longer on the right side.

On the other hand, a kurtosis value is zero for normal distributions whilst it is negative for flat distributions (low kurtosis) and a positive value for peaked distributions (high kurtosis), Bachman (2004) stated that as a rule of thumb, the values of skewness and kurtosis should be between -2 and 2) which provided support for univariated normality as shown below. The test result shows the skewness and kurtosis values are within the normal range and the normality assumption was fulfilled. Normality was also represented by the graph on figure below.

Fig. 4.2 – Histogram of normality test



Source: own survery, 2023

4.3.3. Multicollinearity test

A multicollinearity problem occurs when two or more explaining variables in a regression model are so highly interrelated that although the joint contribution is significant. If refers to the assumption that the independent variables are uncorrelated. The analysis interprets regression coefficients as the effects of the independent variables on the dependent variables when collinearity is low. This means that inferences can be made about the causes and effects of variables reliably. Multicollinearity occurs when several independent variables correlate at high levels with one another, or when one independent variable is a near-linear combination of other independent variables. Keit (2006) analyzed that as more variables correlate, the less able researchers can differentiate the impacts of variables. He also stated that multicollinearity can lead to misleading and unusual results, exaggerated standard error, decreased regression coefficient capacity, creating a need for larger sample sizes. Multicollinearity in the output can be controlled by looking at the tolerance values or variance inflation factors (VIF). Low tolerance levels (Tol < 0.2 or VIF > 5) are an indication of possible multicollinearity.

Table 4.1 – collinearity statistics

Collinearity statistics		
	Tolerance	VIF
RI	.544	1.838
RA	.511	1.956
RR	.563	1.776
RM	.729	1.373

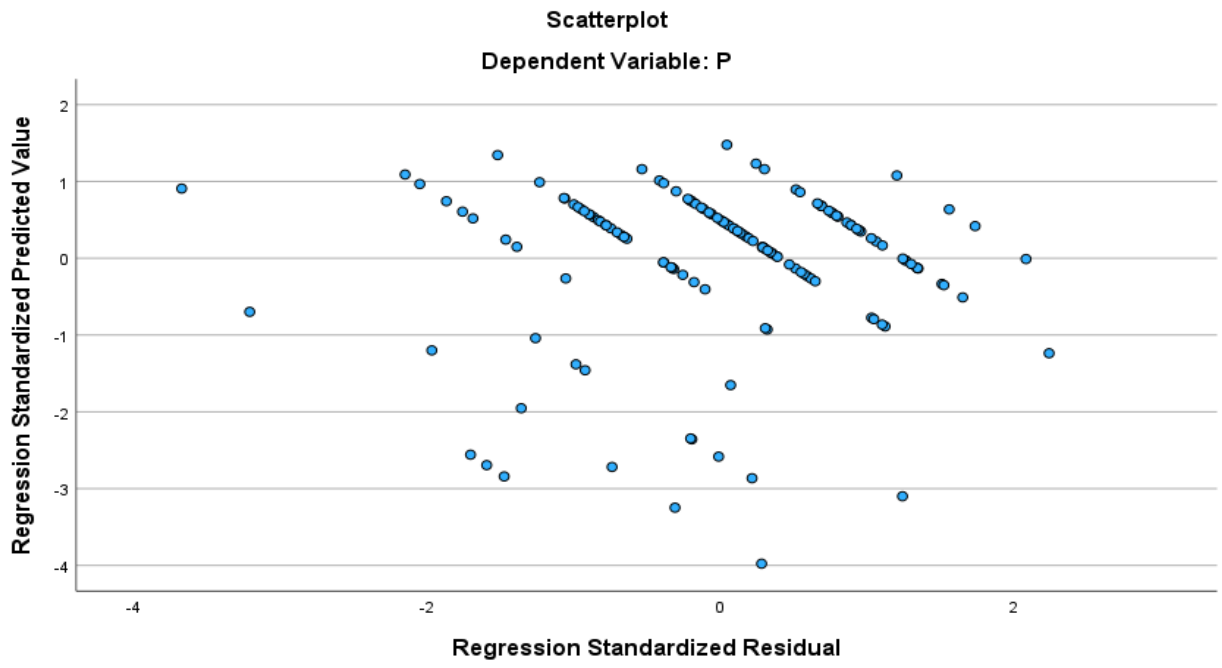
Source: own survery, 2023

The table above shows information about pharmaceutical businesses in Addis Ababa. The study looked at independent variables using a program called SPSS. The results showed that there was no problem with having too much similarity between the variables.

4.3.4. Homoscedasticity test

Homoscedasticity implies that the variance of the residual is constant for all elements, as opposed to heteroscedasticity where the variance of the residual is not constant for all elements in the population. It can be examined by looking at the scatter plot from the regression standardized residuals and regression standardized predicted value on figure below to see if the values fan out over the scatter plot. If they do, the scatter plot confirms hetrroschedasticity. In this case, there are points equally distributed above and below zero on the x-axis, and to the left and right of zero on the Y-axis. So, after examining the outcomes of the regression analysis without residual outliers, none of the regressions showed signs of heteroscedasticity. The outcome is depicted in the graph below.

Fig. 4.3 – Scatter plot of homoscdasticity test



Source: own survery, 2023

4.3.5. Autocorrelation test

Autocorrelation is an assumption that the errors are linearly independent of one another (uncorrelated with one another). The value of Durbin-Waston statistics ranges from 0 to 4. The residuals are considered independent (not correlated) if the Durbin-Waston statistic is around 2, with a range of 1.50 – 2.50 acceptable (Babatunde, 2014). The errors are said to be auto-correlated if they are correlated with one another. The popular Durbin-Watson test was used to determine whether or not autocorrelation existed. The rejection/ non-rejection rule would be given by selecting the appropriate region from the following figure

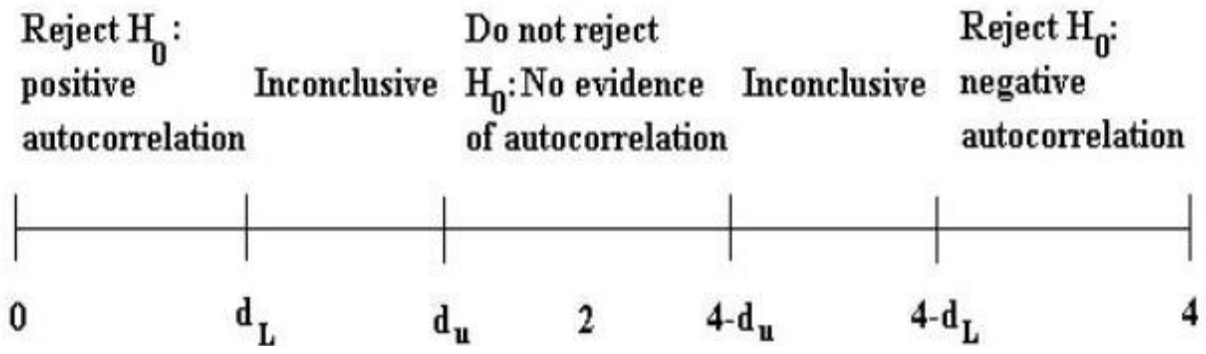


Table 4.2- Durbin-Watson table

Durbin-Watson
2.116

Source: own survery, 2023

4.4. Multiple regression analysis tests

A multiple regression analysis was conducted to test the relationship among independent variables and dependent variable. The analysis was done to establish how the specific performance of pharmaceutical businesses is been affected by risk management practice in the study area. A regression analysis results are presented in the model summery table, the result as shown in the model summary table. The result as shown in the model summary indicates risk identification, risk assessment, risk response, and risk monitoring of pharmaceutical businesses, of pharmaceutical companies performance in Addis Ababa explained 58.2% of change determining the performance of pharmaceutical companies in the study area.

Coefficient of determination R2 is the measure of the proportion of the variance of a dependent variable about its mean that is explained by the independent or predictor variables (Hair et al., 2014). A higher value of R2 represents the greater explanatory power of the regression equation. The table shows the R2 value of 0.582. This result shows that independent variables (RI, RA, RR, and RM) accounted for 58.2% of the variance in the performance of pharmaceutical companies. This means 58.2% of the variation in performance of Pharmaceutical firms was explained by the performance and independent variables. The remaining 41.8 % of the variation is explained by other factors which are not included in this study.

Table 4.3- model summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.763[a]	.582	.573	1.15118	2.116

a. Predictors: (Constant), RM, RR, RA, RI

b. Dependent Variable: P

Source: own survery, 2023

Coefficient table below indicates that I did a study to see how the factors we looked at affect the thing we're interested in. The study looked at how risk management impacts how well pharmaceutical businesses perform in a certain place. The table summarizes the results of a regression analysis. The model summary tells us that when pharmaceutical companies in Addis Ababa identify, assess, respond to, and monitor risks, it explains 58.2% of their performance.

All the factors we looked at had an important impact on the outcome we were studying because their p-values were lower than 0. 05When the p-value of the independent variable is lower than 0. 05, there is a significant relationship between dependent and independent variables. When the p-value is higher than 0.05, there is no significant relationship. Every regression coefficient tells us how much the dependent variable changes when the independent variable changes by one unit. The things that people looked at to find out if there were risks, what they decided to do about those risks, and how they managed the risks all helped make the ridesharing business do well.

The standard beta coefficient for the predictor variables were (β= 0.96), (β= 0.331), (β =0.270), and (β =0.179) for RI, RA, RR, and RM.

$$P = (0.041)\ RI + (0.049)\ RA + (0.046)\ RR + (0.043)\ RM$$

The regression equation shows that if RI increases by 1, the pharmaceutical business performance will increase by 0. 096 If RA increases by 1, the business performance will increase by 0. 331 Basically, sharing rides can help improve the pharmaceutical business, and out of three different methods, one called RI had the biggest impact.

Table 4.4 – Coefficients table

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.480	.752		3.297	.001
	RI	.096	.041	.117	2.326	.021
	RA	.331	.049	.350	6.758	.000
	RR	.270	.046	.292	5.918	.000
	RM	.179	.043	.180	4.140	.000

a. Dependent Variable: P

Source: own survery, 2023

4.5. Research hypothesis test

Using correlation analysis is a great way to find out how independent and dependent variables in a research study are related, but it doesn't show how one variable affects the other. In regression analysis, researchers look at how different factors (RI, RA, RR and RM) affect how well pharmaceutical companies in Addis perform. We checked each theory by looking at the unstandardized number (called "beta") and whether the result was likely or not (called the "p-value"). We either said the theory was true or false based on that information. The correlation coefficient can be weak, low, moderate, or highly correlated. Weak correlation ranges from 0. 00 to 029, low correlation ranges from 0. 30 to 049, and moderate correlation ranges from 0. 50 to 069 highly correlated is anything above 0. 70.

The hypothesis test was employed by multiple regressions which were test independent variables (Risk identification, Risk assessment, risk response, risk management) can predict the dependent variable (performance of pharmaceutical businesses) and help to determine to what extent predict the variable.

HI: There is a positive and meaningful relationship between risk identification and pharmaceutical company's performance.

Findings show that there was a moderate positive correlation (R = 0.768) between risk identification and the performance of pharmaceutical companies. The coefficient of determination (R2 = 0.582) shows that risk identification accounted for a 58.2% change in the performance of pharmaceutical firms. These findings were subjected to a test of significance (p) and it is shown that the significance of the correlation (p= .021) is less than the recommended critical significance at .50. Because of this, the hypothesis was also accepted.

H2: Implementing risk analysis process leads to better performance of pharmaceutical firms.

The hypothesis findings show that there was a moderate positive correlation (R = 0.768) between risk analysis and performance of pharmaceutical firms. The coefficient of determination (R2 = 0.582) shows that risk analysis accounted for a 58% change in the performance. A test of significance (p) was performed on these results, and it was discovered that the correlation's significance (p< .001) is less than the recommended critical significance of 0.50. As a result, the third hypothesis was accepted.

H3: Implementing risk response process leads to better performance of pharmaceutical firms.

The table shows that the risk response is 0.270 and very important at a level of less than 0. 001The p-value is very small (less than 0. 001), which means that the results of the analysis are

significant and unlikely to have happened by chance. This means that the hypothesis was proven true, and that the risk response and performance of pharmaceutical companies are connected in a good way.

H4: There is a positive relationship between risk monitoring and pharmaceutical company's performance in companies having a system in understanding and monitoring strategic, market, competition, human and quality risks.

Keeping a watchful eye on risks helps pharmaceutical companies in the capital city of Ethiopia do better. The risk management showed a coefficient value of 0. 179 and it was found to be significant with a p-value of less than 0. 001 (p=0000) the findings suggest that the P-value is very small, less than the accepted level of significance. Since we found out that identifying risks can help pharmaceutical companies do better, we believe that our idea is right.

4.5.1. Summary of hypothesis

Table 4.5 – Hypothesis summary tablet

Hypothesis		**Unstandardize coefficients**	**P-value**	**Result**
H1	*There is a positive and meaningful relationship between risk identification and pharmaceutical company's performance.*	.096	.021	**Accepted**
H2	*Implementing risk assessment process leads to better performance of pharmaceutical firms.*	.331	<.001	**Accepted**
H3	*Implementing risk response process leads to better performance of pharmaceutical firms.*	.270	<.001	**Accepted**
H4	*Implementing risk monitoring process leads to better performance of pharmaceutical firms.*	.179	<.001	**Accepted**

Source: own survery, 2023

4.6. DISCUSSION

The research prime objective and research questions were to analyze the extent to which risk management practice has been impacting the overall performance of pharmaceutical firms, particularly those who work in Addis Ababa. The characteristics of risk management are defined by using risk identification, risk assessments, risk response and/or treatment and risk monitoring. According to the present values, risk monitoring is extra associated than the other variables. Based on the result the dominate factor is risk monitoring on pharmaceutical commercial enterprise performance accompanied by way of danger response and evaluation and identification respectively.

I used a computer program called IBM SPSS 29 to figure out the information. The study found that the model is dependable because it scored higher than 0. 7 in categories such as identifying risks, assessing risks, responding to risks, monitoring risks, and the performance of pharmaceutical business and building relationships. The smallest number we found for how well risk management helps pharmaceutical companies was 0. 706 Then, we found 0.716 and 0.725 for identifying and monitoring risks. The highest number for how well we responded to risks was 0. 756, and the second highest was 0. 728 for how well we assessed the risks. The test showed that the things being looked at are very trustworthy.

The tests showed that the study looked at the way the mannequin's parts related to each other. These relationships were easy to measure because they were almost straight lines. Skewed values can be good, bad, or nothing at all. Skewness is a way to describe how symmetrical or not a group of numbers is. If it's zero, then it's perfectly symmetrical. However, if it's a positive number, then the group of numbers has a longer tail on the right side. The test result is normal. The research checked some numbers for different things using SPSS. They found that all the numbers were okay and nothing was wrong with the information.

Also, there are numbers evenly spread out above and below the middle on the horizontal line and to the sides of the middle on the vertical line. After analyzing the results of the regression test without any errors, none of the tests showed any signs of uneven variation. We used the Durbin-

Watson test to find out if there was a connection between the data points. If the Durbin-Watson statistic is between 1.50 and 2.50, which is okay, we can decide if our results are good or bad. This means that our research passed the autocorrelation test and is normal.

Moreover, concerning the hypothesis the first one stated that there is a significant relationship between risk management and pharmaceutical companies' performance. Thus, the finding of the study supports hypothesis. Hence, the result is in agreement with the findings of Andersen 2008, Jafari et al (2011), Gordon et al. (2009). However, the finding does not agree with the conclusion of O.L Bjelland, 2022, who study the impact of risk management on companies' performance, and concluded that risk management and its frame works like risk identification, risk assessment, risk response and risk monitoring have no significant positive impacts on business performance.

The finding also did not support the conclusion of L.O. Gonzalez, P.D. Santomil & A.T Herrera 2020, who focused on the effect of risk management on business performance, and conclude that risk management or its frameworks was found to negatively affect business performance of companies. The study result shown that the ramification of risk management on pharmaceutical firms' performance is significant. This hypothesis was investigated using the correlation coefficient ® and the coefficient of determination. The results show that there was a strong positive correlation (R = 0.763) between risk management and the performance of pharmaceutical companies in Addis Ababa city.

The coefficient of determination (R2= 0.582) shows that risk management accounted for 58% change in the performance of pharmaceutical firms. These finding were subjected to a test of significance (p) and it is shown that the significance of the correlation (p=.000) is less than the recommended critical significance at 0.05. Because of this, the first hypothesis was accepted.

The first hypothesis (H1) stated that there is a significant relationship between risk identification and pharmaceutical company's business performance. Thus, the finding of the study supports the hypothesis (H1). Hence, the result is in agreement with the findings of Berry-Stolzle and J.Xu, 2018. The study result shown that the effect of risk identification on business performance is

significant. The second hypothesis stated that risk assessment is significantly related with pharmaceutical firms' performance. Accordingly, the study finding supports this hypothesis too. Hence, the result is in agreement with the findings of Colquitt et al., 1999 and Ellul and Yerramilli, 2012. The study result shown that the effect of risk assessment on pharmaceutical companies' performance is significant.

Findings show that there was a moderate positive correlation (R = 0.768) between risk identification and the performance of pharmaceutical companies. The coefficient of determination (R2 = 0.582) shows that risk identification accounted for a 58.2% change in the performance of pharmaceutical firms. These findings were subjected to a test of significance (p) and it is shown that the significance of the correlation (p= .021) is less than the recommended critical significance at .50. Because of this, the hypothesis was also accepted.
The hypothesis findings show that there was a moderate positive correlation (R = 0.768) between risk analysis and performance of pharmaceutical firms. The coefficient of determination (R2 = 0.582) shows that risk analysis accounted for a 58% change in the performance. A test of significance (p) was performed on these results, and it was discovered that the correlation's significance (p< .001) is less than the recommended critical significance of 0.50. As a result, the third hypothesis was accepted.

Hypothesis third (H3) stated that there is a significant relationship between risk response and business performance of pharmaceutical companies. Thus, the finding of the study supports the fourth hypotheses. Hence, the result is in agreement with the findings of Pagach and Warr 2011. The study result shown that the ramification of risk response on pharmaceutical companies' performance is significant. The fourth and the last hypothesis (H4) stated that there is a significant relationship between risk monitoring and pharmaceutical firm's business performance. Thus, the finding of the study supports hypothesis four (H4). Hence, the result is in agreement with the findings of T.J. Andersen, 2008, Farrell and Gallagher, 2019. The study result indicated that the ramification of risk monitoring on the overall performance of pharmaceutical firms is significant.

Furthermore, the results of the regression analysis of the study indicate that there was a significance positive and strong relationship between independent and dependent variables. The score of R2 has the value of 0.582 or 58.2% this implies the independent variable explain 58% of the variation of the dependent variable which is pharmaceutical companies overall business performance. The multiple correlation coefficients (r), with a value of 0.806, represent the correlation ratio indicating the existence of link between pharmaceutical firms' business performance and risk management.

CHAPTER FIVE

5. SUMMARY, CONCLUSION, RECOMMENDATIONS AND FUTURE RESEARCH DIRECTION

5.1. INTRODUCTION

The chapter starts with a brief overview of the research results on the connection between risk management and success in the pharmaceutical industry. And then it gives a summary and moves on to suggestions. Lastly, goals for future studies are suggested.

5.2. SUMMARY

Risk management was thought us a means of alleviate, perhaps eliminate negative outcomes of exposures. However, the end result of this and other empirical studies shows the ability of risk management to go above and beyond. This particular study confirms that the proper risk management practice has a vital role for the overall performance and/or fruitfulness of pharmaceutical business companies. The research involved three handed and forty pharmaceutical firms; eight manufacturers, eighty three importers and wholesalers and two hundred and forty nine retail outlets were part of the study. Out of the distributed 340 questionnaires a total of 310 questioners (91.2%) were obtained and used for analysis.

Demographically most participants about fifty two percent were in the age range of thirty up to forty years old, about twenty eight percent of respondents were in the age group of twenty to thirty years old, about nightly percent were in the age group of above forty years old while the remaining was below twenty years old. On the other hand, out of total 310 participants involved in this study, 34.5% was female and the remaining balance 65.5% was males. Regarding

educational level of participants, more than half of the participants, 70 % were having educational status of first degree and above in pharmaceutical science. The second larger portions (21%) of the participants were having educational level of bachelor's degree and above in business administration. The remaining, 5.2% were having educational level of college degree in leadership and the last 3.9% have had economist degree. With respect of position of the participants in their respective companies, out of the total 310 of them 17.4% were general managers. In addition, 2.6% of respondents were in an executive manager position and the remaining 21.6 % technical managers. More than half of participants (58.4%) were having a position of head pharmacist.

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For collecting data, questionnaires were used based on the research question mentioned before and were adapted from Apostolos, giovanie (2015), Joana (2016), Samuel Assis (2017), and Elin & Linn (2012). The research used a set of questions to see if there was a connection between how companies manage risks and how well they did. The questionnaire contains close ended Likert scale questions, which are best suited to the research questions and objectives because they provide an efficient method of collecting responses from a large population prior to quantitative analysis.

A multiple regression analysis was conducted to test the relationship among predictor variables and dependent variable. The analysis was done to establish how the specific performance of pharmaceutical businesses had been affected by risk management practice in the study area. So as to meet the objectives and test the hypotheses, after critically reviewed the existing literature, questionnaire was adopted from previous research work and distributed to respondents. From three hundred and forty questionnaire delivered to participants, three hundred and ten questionnaires which are properly filled were returned and used for the analysis. The information was studied using a special computer program called SPSS. For the hypothesis testing a regression analysis was applied. Prior to running the regression analysis, diagnostic tests like linearity, multicollinearity, normality and homoscedasticity tests were undertaken, consequently reliability and correlation analysis also done.

The results of reliability test, confirmed that all measurements used in this research had an acceptable level of reliability. The Pearson correlation indicated no problem of multicollinearity. In addition, other preliminary test results also confirm that there were no significant data problems that would lead to say the assumptions of regression analysis had been violated. The results of hypotheses testing indicated that the effect of risk identification on the overall performance of pharmaceutical companies is positive a significant (H1). Similarly, the results also confirmed that the effect of risk assessment on pharmaceutical firms is also positive and significant (H2). Both risk response and risk monitoring have positive and significant impact on the performance of pharmaceutical businesses (H3 and H4).

Conclusively, the results reported in this study support all hypothesis, as a result the entire hypothesis are accepted. The results of the correlation analysis of the study indicated that there was a significance positive and strong relationship between independent and dependent variables. Regarding regression analysis, the estimated model shows that all four independent variables (risk identification, risk assessment, risk response and risk monitoring) have positive and significant effect on pharmaceutical companies' business performance.

5.3. CONCLUSION

Owing the aforementioned key finding it could be possible to conclude that risk management strategies, procedures and practices are monumental in both sustaining and boosting the business performances of pharmaceutical companies found in Addis Ababa, Ethiopia. Moreover, it's also possible to conclude that among risk management dimensions considered in this research the effects of risk monitoring and risk treatment and/or response on pharmaceutical firms performance is ranked first and gets the upper hand.

The research shows proof that managing risks can help pharmaceutical companies do better in business. This information can be useful for people who work in the pharmaceutical industry. The series of events happening in the country is making it hard to predict what the future of businesses will be like.

Pharmaceutical companies are starting to realize the importance of managing risks when making business plans and are now including it as a key component of their strategies. To make businesses more likely to use risk management, medicine companies should know more about why it's important to use good risk management methods.

Based on the results of the research the following conclusions are made;

-Risk management has a direct effect on the overall business performance of pharmaceutical firms. Thus, pharmaceutical companies can increase whenever there is proper risk management in place.

- Pharmaceutical firm business performance is also directly affected by risk identification and risk assessment. Therefore, performance of pharmaceutical companies also can increase when there is proper risk identification and analysis system in place.

- Risk response and risk monitoring also has direct and positive effect on pharmaceutical firm performance. As a result, the performance of companies can increase when the there are proper risk response and monitoring.

In short, the companies have a plan in case something bad happens. They can figure out what could go wrong and put safety measures in place for everyone involved. They should consider their business and risks associated with it in a wider perspective.

5.4. RECOMMENDATION

Pharmaceutical companies in Addis Ababa have two big challenges when it comes to business risk. First, they need to identify and understand the specific risks they face, and, second, they must also create a fundamental, practical approach for evaluating these risks. Particularly for large pharmaceutical companies in the city who adopts well founded organizational structure and leadership system, implementing strategies to address anything that could go wrong in the businesses they run is fundamental, and gathering detailed information about risks that can guide the strategic decisions been also what managers must make every day.

Furthermore, as the pharmaceutical business sector evolves and changes in the city, so too will the nature of the risks these companies face. The risks and there management recommendations here are those that the research output vindicate and/or believe should be at the forefront of pharmaceutical leader's minds. A risk intelligent approach to understanding and addressing risks can help keep pharmaceutical companies attuned to what risks are most important, what risks may be emerging, and what can be done to both manage risks and capitalize on them in an increasingly complex and challenging environment.

Nevertheless, pharmaceutical firms better improvement in performance resulted from the risk management system employed. Pharmaceutical companies' ability to manage risk, identifying and assessing risks which are too mitigate and making calculated and concrete decisions in this regard lift up not only the strength of the firm but also the entire economic and health system of the city. In addition, for pharmaceutical business sector actors risk management is an effective tool, used in order to alleviate unwanted effects of exposures and earn optimum benefit from risky situations.

Generally, implementing effective risk management system enhance the pharmaceutical businesses understanding of exposures that are expected to potentially challenge the company and treating risk as an opportunity than as a threat only. Companies need to be intelligent enough in managing their risks not only to grasp the benefit out of it but also to survive in business. Finally, having the fact in mind that pharmaceutical business in the capital Addis Ababa, like other businesses in other areas is always associated with exposures, the aim of effective risk management is also to maintain balance between risk and benefits.

5.5. FUTURE RESEARCH DIRECTIONS

In order to broaden the knowledge hub on the research aria under consideration, future interested researchers can consider endless views. The study was only limited to four variables which are risk identification, risk assessment, risk response and/or treatment and risk monitoring taken as independent variables to investigate the performance of pharmaceutical companies in Addis Ababa, Ethiopia. However, the results to the study cannot be generalized to other pharmaceutical firms beyond the city. Therefore, future research can be done on a greater scale with large pharmaceutical companies working arias to determine the factors that affect the performances of the business sector all over the country and beyond.

There are plenty of dynamics in which risk managements and performance of pharmaceutical business sectors can be analyzed. For instance interested researcher can investigate points in which risk management dynamics arose from designing strategies, in terms of quality, human resource, competitions, and other factors affecting pharmaceutical businesses independently.

In modern business environment digital technologies underlies the great deal of change, businesses including pharmaceutical companies are shifting under the influence of social media and trending news. New type of digital firms like Medpharm Ethiopian online pharmaceutical firm with unlimited growing opportunities are exploiting the changes, though as companies digitize more parts of their organization and/or operate fully in the online market place, the risk of cyber attacks and breaches of all kinds grows. Therefore, researchers can also study this particular interesting twenty first century business phenomenon.

In addition, any researcher can make analysis on how competition in the pharmaceutical business can become major risks and look for the extent by which this affects the revenue or other performance of the business. Not only that but it's also possible to investigate how relatively limited quality service and production can become risk for pharmaceutical firms and to what extent are quality in both production and service relates to the overall performance of firms with in the sector. Furthermore, future researchers also can look at how human capital can become risk for the sector and how it looks in its relationship with the performance of businesses.

In conclusion, due to conceptual complexity of risk management, the area has not been explored enough. Not many studies have looked at how a company's performance is affected by the way it manages risks. On the other hand most articles on the area of risk management focus on measuring the effectiveness of different risk management systems by only examine risk management as an end by itself, rather than taking it as a means for higher business performance.

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Appendix

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(ኢፋማ)

ETHIOPIAN PHARMACEUTICAL ASSOCIATION
(EPA)

ቁጥር
Ref. No: EPA/00654/2022

ቀን
Date: September 9, 2022

To Whom It May Concern

This letter is in regard to kindly vindicate our member Abel Getachew is undertaking a research entitled "The ramification of risk management on the performance of pharmaceutical businesses operation in Addis Ababa, Ethiopia: Empirical study". He's taking this opportunity in partial fulfillment of MBA master's degree.

Evidently there's a dearth of study on risk management in pharmaceutical sector, therefore the research will play a crucial role in filling the literature and knowledge gap seen in the area.

In addition, we strongly believe that the result of the project would have practical application and be of value to you, to us and to the profession at large. Hence we would be very grateful if your organization could support us in this endeavor.

On behalf of EPA (Ethiopian pharmacies association), we heartily express our gratitude in examining our request for support. We assure you that all protocols will be followed, and privacy regulations adhered to.

Thank you; your cooperation is valued

With best regards

Kidu Hailu
Executive Director

ETHIOPIAN PHARMACEUTICAL ASSOCIATION 1974

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Addis Ababa University
College of BUSINESS & ECONOMIC
Master Of Business Administration

Ref No: CBE/MBA/2021/22/54/

Date: Sep 28/22

To Whom it May Concern

Student Abel Getachew, is undertaking project entitle, "the ramification of risk management On the Performance of Pharmaceutical businesses Operation A.A, Ethiopia
She/He is taking this opportunity of project study in partial fulfillment of MBA master in Finance /M<anagemnt.

We believe that result of the project would have practical applicastion and be of value to you, to us and to the business Community at larger. Hence we Would be very grateful if your organization could support us in this endeavor.

Besides, we promise You that data Will be Kept confidential and used for academic purposs only Further, we can send to you all the summary and finding when the undertaking is completed.

Thank You for the anticipated cooperation.

With best Regards.

Faculty of Business and Economics MBA programme
Addis Ababa University

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Addis Ababa University

☎ 251-011-1-22-96-91 ✉5563