

Chapter One

1. Introduction

1.1 Background of the study

Service sectors a backbone of any country financial performance of economic growth and industrialization of the country. Insurance sector has its own importance because it is responsible to provide proficient financial aid, channel funds, utilization of resources in optimal manner and investor's treatment. Under the umbrella of financial sector, Insurance sector plays a pivotal role of regulating funds to different industries thereby contributing major inflows towards economic and financial growth (Andrieş & Căpraru, 2014)

Financial performance is one of many different measures to evaluate how well a firm is using its resources to generate income (Ngui, 2010).The insurance sector has an important role in the economic development of the country, mainly by its role of intermediary and provider of financial services and by identifying the risk transfer of the society. (Ionescu,2012)

The role of financial institutions in the economy of a country in general and insurance companies in particular is vital in savings mobilization, risk transfer, intermediation and stabilizing economic activity (Sambasivam & Abate, 2013).

The insurance industry has a very important role in the financial systems of countries around the world, become the largest employers in the world and the world market is at an increasing growth, largely thanks to the opening of the insurance market in developing countries. (Piljan, Cogoljevic, & Pilja, 2015).

The insurance sector plays an important role in the industry of financial services, as it contributes to economic growth, enables efficient allocation of resources, affects the reduction of transaction costs, contributes to the creation of liquidity, and increases the economies of scale in investments. The insurance sector is a relatively stable segment of the financial system, where the interaction between insurance companies and other financial market participants, such as banks, pension funds and other financial intermediaries, is growing considerably over time (Haiss, & Sümegi, 2008).

Insurance companies perform important functions in the domain of financial intermediation. The most significant ones are providing of insurance and channeling of funds across time and space while managing various financial risks.(Croatian Operational Research Review (CRORR) 2013

Insurance companies can be important for the stability of financial systems mainly because they are large investors in financial markets, because there are growing links between insurers and banks and because insurers are safeguarding the financial stability of households and firms by insuring their risks.(<https://www.ecb.europa.eu/fsr/art>). They offer financial protection to an individual or firm against the monetary losses which are suffered from unforeseen circumstances (Kihara, 2012)

Financial performance is crucial for the survival and further growth and development of insurance companies. In addition, the financial performance of insurance companies has direct implications for a wide range of audiences, from insurers to stockholders, from employees to brokers, from regulatory authorities to potential investors. Key indicators of a company's performance are profitability, size and continuity of the company's operations. Factors that affect the profitability of insurance companies can be classified as internal factors, insurance industry factors and macroeconomic factors (Kung, Yan, & Chuang, 2006).

Profitability is one of the most important objectives of financial management since one goal of financial management is to maximize the owners' wealth, and, profitability is very important determinant of performance. Hifza Malik (2011).Profitability is ability of accompany to use its resources to generate revenues in excess of its expense.(<https://www.myaccountingcourse.com/jm>)

Very importance to identify the determinant factors of profitability of EIC to craft strategy that can sustain business growth and ensure competitive advantage.

1.2 The Insurance Industry in Ethiopia

The concept of insurance is not new and it always existed as a form of response to some problem faced by society. A form of insurance even existed in early Rome, where Romans gathered together in burial societies. They all contributed to a fund and the members of the pool had their burial costs met by the society (The Chartered Institute of Insurance, 2000).

The Ethiopian insurance industry does not have a long history of development despite the country's long history of civilization. Modern forms of insurance service which were introduced in Ethiopia by Europeans, trace their origin as far back as 1905 when the bank of Abyssinia began to transact fire and marine insurance as an agent of a foreign insurance company. According to a survey made in 1954, there were nine insurance companies that were providing insurance service in the country. With the exception of Imperial Insurance Company that was established in 1951, all the remaining of the insurance companies were either branches or agents of foreign companies. In 1960, the number of insurance companies increased considerably and reached 33. Non-Ethiopian nationals were not barred from participating in insurance business. However, the proclamation defined domestic company as a share company having its head office in Ethiopia and in the case of a company transacting a general insurance business at least 51% and in the case of a company transacting life insurance business, at least 30% of the paid-up capital must be held by Ethiopian national companies. (Sambasivam & Abate, 2013).

According to Hailu (2007), the first significant event that the Ethiopian insurance market observation was the issuance of proclamation No. 281/1970 and this proclamation was issued to provide for the control & regulation of insurance business in Ethiopia. Consequently, it created an insurance council and an insurance controller's office, its strange impact in the sector. The controller of insurance licensed 15 domestic insurance companies, 36 agents, 7 brokers, 3 actuaries & 11 assessors in accordance with the provisions of the proclamation immediately in the year after the issuance of the law.

Moreover, the 1960's in Ethiopia was characterized by Ethiopian nationals going abroad for insurance related education and experience sharing purposes. Despite the above developments in the legal framework, there was no comprehensive and detailed insurance business

legislation enacted by the Ethiopian Government until 1970. The 1970 Insurance Proclamation legally created the Office of the Controller of Insurance that was to be in charge of implementing the insurance proclamation. The proclamation set the conditions for establishing insurance business, the capital requirements for general-only or life-only or both categories of businesses, respective statutory deposit requirements, also specified the conditions for appointing insurance agents and brokers. Besides, the 1970 Insurance proclamation, due to its new ownership requirements (minimum 51% Ethiopian nationals ownership in all insurers), it forced some foreign insurance companies to close their business in Ethiopia and leave.

In 1974, the Ethiopian insurance industry showed a significant shift which was reflected by nationalization all private insurance companies operating in Ethiopia and a single state owned insurance company, called Ethiopian Insurance Corporation, came in to existence and had been operating as a sole insurer until the sector liberalized in the 1994. Immediately after the enactment of the proclamation in the 1994, private insurance companies started to operate insurance business.

The Ethiopia's insurance market is one of the least developed markets, which is exemplified by low penetration rate, which is, 0.43%, as compared to other Sub Sahara African (SSA) countries. The result witnessed that the Ethiopian insurance market is still untapped with possible future growth (Insurance penetration in Sub-Saharan Africa in 2017, by country, n.d.). Furthermore, EIC annual report explained that the Ethiopian insurance industry is not only exemplified with low penetration rate (0.43%), but also the market is experienced with poor public awareness and perception, price war and unethical competition, overdependence on traditional products, weak distribution channels, absence of actuaries, low customer satisfaction, and shortage of skilled man power (EIC Annual Report, 2016/17). www.ethiopian insurance corporation.

1.3 Background of Ethiopian Insurance Corporation

Ethiopian Insurance Corporation (EIC), a state owned financial institution, was first established on 1st January 1976, by proclamation No 68/1975. The Corporation came into existence by taking over all the assets and liabilities of thirteen nationalized private insurance companies with paid up capital of Birr 11 million. The corporation later reestablished in accordance with the Public Enterprises Proclamation No. 25/1992 with a capital of Birr 61 Million.

The objectives of the Corporation as stated in the Proclamation are: to engage in the business of rendering insurance services and carry out any other related activities conducive to the attainment of its purposes. Starting from its establishment, EIC has been providing insurance services to its customers acting as the only insurance service provider for 19 years, (1976-1994) and as one of the insurance companies operating in the market since 1994. Following the liberalization of the financial sector in 1994, the Ethiopian insurance market has been opened-up to local investors and as a result private insurance companies began to flourish in the country.

At present, EIC has 1,604 employees with 102 direct sales outlets and 705 active sales agents, and working with different renowned reinsurers, local and international brokers and banks. EIC provides life, property and liability insurance policies, and it also engaged in different investment areas in line with the National Bank of Ethiopia investment directive. Known for its strong and reliable financial standing, longstanding affiliation with several international insurance organizations and associations, EIC has maintained a comprehensive range of outward reinsurance contract, and accepting inward reinsurance (including Co-insurance) business on wide range of risks.

EIC provides Long term (life) and general (property and liability) insurance covers to various types of customer comprising government, public and private individuals and organizations.

EIC also is undertaking an extensive reform and good governance program that would support the financial sector reform program and the socio economic development and transformation program the nation is embarked on. EIC has been implementing different reform tools (Quick Wins, BPR, BSC) since 2011 aimed at creating an efficient, effective, ethical, and performance oriented Insurance Corporation.

Ethiopian Insurance Corporation is market leader of the Ethiopian insurance sector since the market has been opened to local insurance companies in 1994. The corporation has played significant roles in impacting the sector directly or indirectly in several areas such as product development, knowledge transfer and expertise, expansions of outlets, establishment of local reinsurance company (Ethio – re) etc. The corporation also able to support the national development not only in creating employment opportunity and providing insurance cover to the large public, but also it contributes to larger extent in discharging significant amount of state dividend to the government that emanates from its consistent profit performance.

1.4 Statement of the Problem

Profitability is one of the most important determining performance indicators for any business company that witness financial healthiness and boost confidence level of shareholders/stakeholders. It is one of the most important objectives of financial management since one goal of financial management is to maximize the owners' wealth. It is reflection of how companies are run, given the environment in which they operate. Hifza Malik (2011). A number of factors affect the profitability of an enterprise. Their influence varies in the short term, as well as in the long term. Recognizing these factors was very helpful in managing a business entity. These determinants can be of a positive or negative nature. Agnieszka Parkitna and Beata Sadowska (2011).

On the same manner profitability of insurance business in Ethiopia in general and Ethiopian Insurance Corporation in particular was influenced by various factors which largely depend on companies' ability to manage them on timely manner. In the last two decades, the number of Insurance Company has increased from year to year and now reached 17 including the state owned insurer, EIC. The competition among them however has gained its peak even though the services and the products offered to its consumers lacks a lot as compared to other peer countries such as Kenya, South Africa and Nigeria (EIC Annual Report, 2017). www.ethiopian insurance corporation.et

Truly speaking, the Ethiopian insurance market is exemplifying with fierce and throat cut market competition as some of private insurance companies are ambitious to increase their sales volume by granting unjustifiable discounts to attract clients and attain their sales forecast which resulted in unhealthy spiral of premium cutting which becomes the concern of all concerned stakeholders, partners & even customer (Type of Insurance companies operating in Ethiopia, n.d.(no date))shodhganga.inflibnet.ac.

The existence of fierce price based competition among insurers in Ethiopia become also the concern of Ethiopian Insurance Association and hired an international actuarial firm to conduct study to set minimum price (premium rate). EIC annual report 2016/2017). This is because profitability of the insurers would be affected by unfair price war, and the interest of the

large public (insured) would be in jeopardy. This doesn't mean that the profitability of insurance companies has been affected by price only instead there are various factors that determine insurance business profitability as well. Profitability in insurance companies could be affected by a number of determining factors that could be internal, industry, and macroeconomic (Sambasivam & Abate, 2013)

In view of the above facts, if EIC is able to identify and manage the factors that determine profitability of its insurance business, it would be able to enhance its competitive advantage and profit performance on a sustainable manner. Most of studies investigate on factors that determine the profitability of insurance companies in Ethiopia focusing on factors such as company size, leverage, liquidity ratio, claims ratio, inflation and GDP. However, there are also other variables there is not enough research specially commission expense, expense ratio and ROI and other determine the profitability of insurance sectors such as claims ratio, inflation, reinsurance dependency, and underwrite result apart from political, economic and social condition.

Despite the fact that the profit performance of the corporation has registered positive growth from year to year, the researcher could not find any research study conducted on the determinant factors that affect EIC's profitability and this becomes the research gap that needs to be addressed. The aim of this study is, therefore, to examine factors that determine profitability of insurance companies focusing on the case of the largest insurer in Ethiopia, i.e. EIC

To the best of my knowledge, there is no study that has a clear focus on identifying the factors that determine EIC's profitability and to what extent these factors affect EIC profit performance. Moreover, the absence of sufficient empirical studies in Ethiopia concerning determinants of insurance companies' profitability is then what motivates the researcher to identify what factors and to what extent EIC's profitability will be affected.

Therefore, the present study was attempted to fill the aforementioned research gap by providing information about the extent of contribution of major factors affecting profitability of EIC.

1.5 Research Questions

Considering all the real facts stated earlier, this study was expected to answer the following questions;

- a) What are the major factors that determine the profitability of EIC?
- b) What is the relationship between EIC specific factors and its profitability?
- c) Which one is the most determinant factor affecting EIC's profitability?

1.6 General Objectives of the Study

The general objective of the study is to identify factors that affect the EIC's profitability.

1.6.1 Specific Objectives of the Study

- ✎ To identify company specific factors that affect EIC's the profitability.
- ✎ To identify major factors that affect EIC's the profitability
- ✎ To find out the relationship between the profitability and external factors

1.7 Research Hypothesis

Therefore, in order to achieve the objective of the study, the following hypotheses were developed regarding the determinants of profitability in Ethiopia Insurance Corporation based on different empirical and theoretical research made.

H1: There is a negative relationship between Claim cost and profitability of EIC.

It is expected that loss ratio will have a negative impact on the profitability of insurance

Companies. Teklit A. B. (2017) the study implies that an increase in loss ratio led to a reduction in profit ratio, significant Negative consequences. Wasike, Andrew Ngoya, EMBA (2016)

H2: There is a positive relationship between underwriting surplus and profitability of EIC.

Suheyli (2015) this study showed that underwriting risk has a negative influence on the insurer's profitability, since taking an excessive underwriting risk can affect the company's stability through higher expenses. Asrat and Tesfahun (2016) this study result shown that significant negative impact of underwriting risk on insurance companies' profitability.

H3: There is a positive relationship between ROI and profitability of EIC

Mwangi, hezro k (2013) The research result showed that there was weak positive relationship between profit and investment income. Niño Datu (2016) the research result showed that the significant negative correlation between return on investment and profit.

H4: There is Negative relationship between Commission expense and profitability of EIC.

Irem H. Prof. Bashir A. (2019) in this study the result showed commission are insignificant in explaining the profitability of life insurance companies in India.

H5: Inflation has a negative and significant impact on profitability of EIC.

Kanbiro O. D., Ayneshet A. A.(2019) the objective of this study was to investigate shows that inflation rate in Ethiopia has significant and negative influence on financial performance of insurance companies. Behailu (2016)) The result suggested that inflation is not a determinant of insurers' profitability in Ethiopia.

H6: Expense ratio has negatively and significant impact on profitability of EIC

Islam Abdeljawad Layth Mofid D. The regression analysis shows a negative but insignificant relationship between expenses ratio and profitability with a coefficient of -0.0065 and significance of 0.9216. Batsiria W.M1, Mbakisi.D2 and Tendais3(2017) the investigated showed expense ratio that significantly affect the performance of insurance companies in Zimbabwe.

H7: Reinsurance dependency has positive and significant impact on profitability of EIC

Based on Suheyli (2015) Analyzed the impact of reinsurance dependence on insurers' profitability remains ambiguous and further research is required. Gemchis (2017) research showed Negative and insignificant relationship between profitability and reinsurance dependence among general insurance companies which implies that reinsurance dependence is not prime determinant of profitability in Mauritius and in Ethiopia during they conduct their studies.

1.8 Scope and limitation of the Study

The scope of this study contextually limit to identifying factors that determine profitability of EIC. The research was concern in understanding factors in affected the profit performance of the Ethiopian Insurance Corporation.

Despite the fact that the determinant factors for profitability of insurance business are several in numbers, this study has been limited only to those factors that have direct and immediate effect on profitability of EIC. The majors factors are claim cost, underwriting result, expense ratio, commission expense, return on Investment (ROI), reinsurance dependence, and inflation. However, for the interest of proper management of the project, time and effort, the researcher was not consider various factors such as company size, diversification, liquidity ratio, interest rate, GDP, leadership etc with the assumption that these factors was not impose significant impact on corporate profitability with relative terms. And also the scope of the study limited only

on the quantitative measure of determinates of EIC without any general performance measurement tool.

This study was include form 2000-2019 On the other hand, despite the fact that the findings of this study can give an empirical evidence and areas of emphasis in the future for both EIC and private insurance companies, one cannot draw conclusion of the same for other business and insurance companies as well.

1.9 Significance of the Study

This study was contribute to the scares empirical data on the factors that determine profitability of the country's insurance industry. Particularly, this study was important in that it sought to identify the determinant factors that affect profitability of Ethiopian Insurance Corporation. It was also have a significant input to evaluate the profit performance of EIC against the benchmark same in other parts of the world. The findings and conclusions can be used an input to improve the profitability of insurance companies operating in the Ethiopian industry in general and EIC in particular.

The contribution of this study to academia is also not in doubt as it was provided a good premise for future research. It was also add to existing literature on the determinant factors for profit performance of insurance companies operating in Ethiopia as well as other part of the world.

1.10 Operational definitions of variables

- Insurance** : A device for transferring specified risks of individual persons to an insurer. The insurer agrees, for consideration (usually payment of a premium), to assume, to a specified extent, certain losses that may be suffered by the insured (NIBA- National Insurance Broker Association, 2006).
- Insured** : The party to an insurance arrangement to whom the insurer agrees to provide cover against specified losses, or to render services, subject to the terms of the insurance contract. (NIBA- National Insurance Broker Association, 2006)
- Insurer** : The party to an insurance arrangement who undertakes to provide cover or to render services, on the happening of specified events. (NIBA - National Insurance Broker Association, 2006)

Claims Ratio(CR) : The ratio of the cost of claims to earned premiums (NIBA - National Insurance Broker Association, 2006) claim expense pertains to the costs, except the actual claim cost, that are incurred in relation to the payment of a claim to insurance. The costs are associated in handling and adjusting claims. Claim expense is also known as claim preparation expense or adjustment expense. (Www. Investopedia.com.)

Commission Expense(CE) : is a fee that a business pays to a sales person in exchange for his or her services in facilitation, supervising, or completing salesIf an employee is receiving a commission, then the company with holds income tax on amount of the commission paid to the employee. (www. accountingtools.com.)

Expense ratio(ER) : The expense ratio in the insurance industry is a measure of profitability calculated by dividing the expense associated with acquiring, underwriting, and servicing premium by the net premiums earned by the insurance company the expense can include advertising, employee wages, and commissions for the sales for sales force.(Www. Investopedia.com.)

Inflation (INF) : As prices rise, a single unit of currency loses value as it buys fewer goods and services. This loss of purchasing power impacts the general cost of living for the common public which ultimately leads to declaration economic growth. The consensus view among economists is the sustained inflation occurs when a nation’s money supply growth outpaces economic growth (www. Investopedia.com.)

Reinsurance Dependency(RID) :Insurance companies usually take out reinsurance cover to stabilize earnings, increase underwriting capacity and provide protection against catastrophic losses, nevertheless it involves a certain costs.(Asrat Lire Tesfahun Tegegn 2016)

ROI : Measure the gain or loss generated on an investment relative to the amount of money invested .ROI is usually expressed as a percentage and is typically used

for personal financial decisions, to compare a company's profitability or to Compare the efficiency of different investments.(investinganswers.com)

Underwriting result(UR) : Underwriters determine whether an insurance agency should undertake the risk of insuring a client. They determine the risk and exposure of clients and also how much insurance should be granted to a client, how much they should pay for it and whether or not to offer and insurance policy to the client in the first place.(economictimes.indiatimes.com.

1.11 Organization of the study

The study had five chapters. Chapter one is the general introduction of the study. It looks at the background of the study, problem statement, objectives of the study; it also briefly looks at the research questions, significance of the study, and scope and limitation of the study. Chapter two looks at the literature review. The literature review comprised both theoretical and empirical reviews of literatures. The conceptual framework for the study is also outlined. Chapter three deals with research methodology that explains the research design and approach, data and data source, methods of data analysis and model specification and variable measurement. Chapter four was look at data presentation, analysis and discussion. Chapter five was cover summary, conclusion and recommendations for the study.

Chapter Two

1. LITERATURE REVIEW

2.1 Introduction

Literature review in this chapter covers definition of insurance, role & significance of insurance, concept of insurance profitability, determining factors of profitability in insurance business and other related issues discussed by various scholars.

2.2 Theoretical Review

2.2.1 Definition of Insurance

Insurance is a contract of coverage whereby one party, the insurer, undertakes, for a premium or an assessment, to make a payment to another party, the policyholder or a third party, if an event that is the object of a risk occurs. (François, 2016). Insurance allows individuals, businesses and other entities to protect themselves against significant potential losses and financial hardship at a reasonably affordable rate. Insurance allows individuals, businesses and other entities to protect themselves against significant potential losses and financial hardship at a reasonably affordable rate. (www. Investopedia.com.)

Lowe (1999) defined that insurance is a contract in which the insured transfers risk of potential loss to the insurer who promises to compensate the former upon suffering loss. The insured then pays an agreed fee called a premium in consideration for this promise. The one that make a promise (promisor) is called the insurer and the one that take the promise (promise) is called the insured (Lowe, 1999). Insurance premium is the monetary consideration paid by the insured to the insurer for the cover granted by the insurance policy.

Insurance business is usually divided into two main classes namely: a) General insurance business-This is a contract between an insurer and the insured where by the insurer under takes to indemnify the assured against losses, which may result from the occurrence of specified events within specified periods. General insurance business can be sub-divided into: motor, fire, accident, oil and gas, contractors' all risks and engineering risks; marine and credit insurance, bond and surety ship etc. This is a contract between the assurer and the assured whereby the

assurer undertakes to pay benefits to the policyholder on the attainment of a specified event. b) Life assurance business: comprises individual life business, group life insurance and pension business, health insurance business and annuities. (Mathematics for Commerce, Economics and Business, n.d.)

The Insurer takes on a number of clients (Insured) who pay small premiums that form an aggregate fund called the premium fund (Norman, 2000). The likelihood of an event or loss may be mathematically calculated or it may be based on the statistical results of past experience in order to determine the amount of premiums that would be required to accumulate a common fund or pool, to meet the losses upon their arising (Grose, 1992).

2.2.2 Role and Importance of Insurance

Insurance, as a preferred risk management tool in modern economy, has various role and importance in general to the country and business entity in particulars. Kumari (2016) stated out that insurance is very important and plays significant role in the following ways.

Provide safety and security

Insurance provide financial support and reduce uncertainties in business and human life. It provides safety and security against particular event. There is always a fear of sudden loss. Insurance provides a cover against any sudden loss. For example, in case of life insurance financial assistance is provided to the family of the insured on his death. Insurance provides the investment opportunities also. In case of other insurance security is provided against the loss due to fire, marine, accidents etc.

Generates financial resources

Insurance generate funds by collecting premium. These funds are invested in government securities and stock. These funds are gainfully employed in industrial development of a country for generating more funds and utilized for the economic development of the country. Insurance helps in providing Employment opportunities leading to capital formation.

Spreading of risk

Insurance facilitates spreading of risk from the insured to the insurer. The basic principle of insurance is to spread risk among a large number of people. A large number of persons get insurance policies and pay premium to the insurer. Whenever a loss occurs, it is compensated out of funds of the insurer.

Source of collecting funds

Large funds are collected by the way of premium. These funds are utilized in the industrial development of a country, which accelerates the economic growth. Employment opportunities are increased by such big investments. Thus, insurance has become an important source of capital formation.

Promotes economic growth

Insurance generates significant impact on the economy by mobilizing domestic savings. Insurance sector provides capital into productive investments. Insurance enables to mitigate loss, financial stability and promotes trade and commerce activities those results into economic growth and development. Thus, insurance plays a crucial role in sustainable growth of an economy.

2.2.3 The Concept of Profitability

According to Farlex Financial Dictionary (2012) profit is defined as a company's total revenue less its operating expenses, interest paid, depreciation and taxes. Profitability is therefore the capacity to make a profit. Profitability is measured through profitability ratios. According to Brealey (2012) profitability ratios include Net profit margin, Return on assets (ROA), Return on equity (ROE) and payout ratio.

According to Brealey (2012) net profit margin calculated as net income divided by revenues, or net profits divided by sales measures the proportion of sales that finds its way into profits. Profit margin is very useful when comparing companies in similar industries. A higher profit margin indicates a more profitable company that has better control over its costs compared to its

competitors. Return on assets calculated by dividing a company's annual earnings by its total assets measures the performance of the firm and is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings. The higher the ROA number, the better, because the company is earning more money on less investment.

According to Brealey (2012) Return on equity calculated as net income divided by shareholders equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. The ROE is useful for comparing the profitability of a company to that of other firms in the same industry. Payout ratio calculated as dividends divided by earnings measures the proportion of earnings that is paid out as dividends. The payout ratio is a key financial metric used to determine the sustainability of a company's dividend payments. A lower payout ratio is generally preferable to a higher payout ratio. Managers don't like to cut dividends if there is a shortfall in earnings. Therefore, if a company's earnings are particularly variable, management is likely to play it safe by setting a low average payout ratio. When earnings fall unexpectedly, the payout ratio will rise temporarily. Likewise, if earnings are expected to rise next year, management may feel that it can pay somewhat more generous dividends than it would otherwise have done.

2.2.4 Determinants of profitability in Insurance Business

According to Ahmed et al, (2011) the performance of any business firm in addition to playing the role of increasing the value of the specific firm, it also leads to growth of the whole sector of the economy. Assessing the determinants of performance of insurance companies has gained tremendous importance in the corporate finance literature. Insurance companies act as intermediaries in financial institutions and helps in channeling funds to support business activities in the economy. Every firm is most concerned with profitability. Financial ratio analysis is among the commonly used tool to determine a company's profitability. Malik, K. (2011) observes that among the determinants of profitability of Insurance companies are; leverage, liquidity, age of the company among others.

2.2.4.1 Age of company

Mingizem (2017) in his research determinant of insurance company profitability in Ethiopia, the research result show age of insurance companies has a medium impact on profitability of insurance companies and has strong relationship with customers and good governance experience so it has an impact on profitability.

2.2.4.2 Company Size

According to Fiegenbaum & Thomas (1990) insurance company's size is measured in terms of premium volume. Economies of scale provide one theoretical basis for arguing that firm size is related to profitability. There is an expected positive relationship between firm size and profitability. The scale economy justification for a positive relationship between firm size and profitability is prominent in the works of Alexander (1949), Stekler (1964), Hall and Weiss (1967) and Scherer (1973).

According to Mathews A.G and Dr.Peter S.S (2017)the size of the firm affects its financial performance in many ways. Large firms can exploit economies of scale and scope and thus being more efficient compared to small firms. Size can be determined by net premium which is the premium earned by an insurance firm after deducting the reinsurance ceded.

2.2.4.3 Leverage Ratio

Chung, Firth & Kim (2002) defines leverage as total debts divided by total assets. According to Adams and Buckle (2003), the degree of financial leverage reflects insurance companies' ability to manage their economic exposure to unexpected losses. This ratio represents the potential impact on capital and surplus of deficiencies in reserves due to financial claims. There is an expected negative relationship between the return on assets and the insurance leverage.

2.2.4.4 Liquidity Ratio

This ratio is calculated by the total of cash and cash equivalents, marketable securities and account receivables divided by current liabilities. Ahmed et al. (2011) noted that ROA had statistically insignificant relationship with liquidity. Cheng and Wong (2004) found that liquidity

is one of the important determinants of financial health of insurance companies. Companies with more liquid assets are less likely to fail because they can realize cash even in difficulty situations.

2.2.4.5 Claims Ratio

The Nigerian insurance industry has witnessed rising claims from policyholders. At the end of June 2017, the reported claims in the financial statements of 22 major leading insurance companies showed claims expenses to be over N40 billion as against N34.1 billion in the previous year (Vanguard, 2017). This is a 17.3 percent growth, which when compared with the 8.76 percent growth in premium income, recorded in same periods, calls for concern. Nonpayment of claims as at when due, reduces the confidence of the policyholders which in-turn makes it difficult to attract new policyholders, thus producing a negative influence on the profitability of the insurance company.(Taofeek sola Afolabi(2018)Submitted that claims from previous years usually surface in succeeding years, which makes the insurance businesses challenging and the attainment of profitability, very difficult. (Yusuf and Dansu (2014)

The lower the claim ratio the better the profitability because higher claim ratios may indicate poor risk selection and imply that the insurance company will have to pay more.Batsirai W. M., Mbakisi D. and Tendai S. (2017) Insurance companies that consistently experience high loss ratios may be in bad financial health. It is an indication that they are not collecting enough premiums to pay claims, expenses, and still make a reasonable profit. Accordingly, it is expected that loss ratio will have a negative impact on the profitability of insurance companies.Teklit A.B.(2017)

2.2.4.6 Commission Expense

Commission expenses are mostly incurred by insurance companies through payments made to sales and marketing teams, agents and insurance brokers. it had significant influence on profit ratio. Wasike,Andrew Ngoya,EMBA(2016)

2.2.4.7 Expense Ratio

A positive relationship between total profits and staff expenses. (Bourke (1989) and Molyneux (1993)

Kozak (2011) found a significant relationship between management expense and profitability of insurance sector.

Batsiria W.M1,Mbakisi.D2 and Tendais3(2017) Operating expenses should be considered as a determinant and prerequisite for improving performance, since expenditures are controllable expenses. If efficiently managed, they can contribute positively to the performance of insurance companies. When an insurer is growing, there should be a progressive decline in the expense ratio.

2.2.4.8 Inflation

Inflation affects profits by reacting on sales volume, by influencing the level of cost and by changing the relationship between cost and prices. Inflation affects financial structures both by increasing the need for funds and by affecting the financial resources available to meet this need.

J.Mcb.Grant,R.L.mathews (<https://onlinelibrary.wiley.com>)

The association between inflation rate and insurance companies' profitability relies up on the nature of inflation. i.e. whether the inflation is anticipated or unanticipated. Based on Peter (1992),

The inflation could affect insurance companies' profitability influencing both their liabilities and assets. In expectation of inflation claim payments increases as well as reserves that are required in anticipation of the higher claims, consequently reducing technical result and profitability. Suheyli(2015).

The inflation could affect insurance companies' profitability influencing both their liabilities and assets. In expectation of inflation, claim payments increases as well as reserves that are required in anticipation of the higher claims, consequently reducing technical result and profitability.Asrat and Tesfahun (2016)

2.2.4.9 Reinsurance dependency

Negative and insignificant relationship between profitability and reinsurance dependence among general insurance companies which implies that reinsurance dependence is not prime determinant of profitability in Mauritius and in Ethiopia during they conduct their studies. Gemchis debala.b(2017)

As a result, determining an appropriate ceding level is important for insurance companies, and they have to try to strike a balance between decreasing insolvency risk and reducing potential profitability. Although it increases operational stability, increasing reinsurance dependence, i.e. lowering the retention level, reduces the potential profitability. Purchasing reinsurance reduces insurers' insolvency risk by stabilizing loss experience, increasing capacity, limiting liability on specific risks, and/or protecting against catastrophes. However, transferring risk to reinsurers is expensive. The cost of reinsurance for an insurer can be much larger than the actuarial price of the risk transferred. Suheyli (2015)

Reinsurance cost or premium is another important factor that can affect the profit margin of the insurance companies. The study examined the records of reinsurance premiums paid by insurance companies during year 2014 and 2015. Wasike,Andrew Ngoya,EMBA(2016)

2.2.4.10 Return on Investment

Investment income has been a determinant factor in failure or success of major insurance companies. Insurers generate capital by selling insurance policies. Insurers generate investing funds because on average premiums are received in advance of payment of loss claims and premium funds are invested during this lag (Kraus & Ross, 1982).

The amount of investible funds generated by an insurer at times depends on exogenous factors for instance the efficiency of the judicial system in processing of claims. Internally an insurer may reduce investible funds by prompt settlement of claims or collecting premium on instalments rather than in a single payment (Kahane, 1978)

2.2.4.11 underwriting result

Among the cornerstone of successful insurance operation is the ability to underwrite well as poor risks selection results in significant losses and insurer failure (Browne & Kamiya, 2012).

The total accounting profit of an insurance company is the sum of underwriting profit and investment gains less income taxes. Underwriting profit in simplified terms is the net of earned premium less claims incurred and operating expenses. (Mwangi Hezron Kamau 2010)

Thus a negative connection between the underwriting risk and the insurer's profitability is expected, since taking an excessive underwriting risk can affect the company's stability through higher expenses. Daniel (2017)

2.2 Reviews of Empirical Studies

Profitability in insurance companies could be affected by a number of determining factors. These factors, as explained above could be further classified as internal, industry, and macroeconomic factors. However, as discussed in the coming consecutive sections of the empirical review below, in most literatures, profitability with regard to insurance companies usually expressed as a function of internal determinants. Rather, most researches concerning determinants of profitability in insurance companies are divided in to two, such as determinants of profitability in property/liability or general insurance companies and in life/health insurance companies.

2.3.1 Global

Accordingly, Hifza Malik (2011) in Pakistan, Sylwester Kozak (2011) in Poland, Hamadan Ahamed Ali Al-Shami (2008) in United Arab Emirates (UAE), Swiss Re (2008) in Egypt and Jay Angoff Roger Brown (2007) in United Kingdom conducted their research concerning determinants of profitability in general insurance companies where as Naveed Ahmed, Zulfqar Ahmed, Ahmad Usman (2011), in Pakistan, Adams M., Hardwick P. and Zou H., (2008) in Canada, Desheng Wu Z., Sandra V. & Lianga (2007), Wright, K. M. (1992), and others conducted their study on determinants of life and health insurance companies. Hence, most of the researchers focused on internal factors affecting profitability and most of the factors considered are age of company, size of company, leverage ratio, growth rate, volume of capital, tangibility of assets and liquidity ratio.

2.3.1 Claims Ratio

Wasike, Andrew Ngoya, EMBA (2016) This study was an attempt to explore Determinants of Profitability in the Insurance Sector in Kenya: A Case of Composite Insurance Companies factors that had direct significant influence on the companies' profitability for the period 2014 and 2015. The study drew the sample of the study from 10 insurance companies out the possible 11 composite insurance companies. Qualitative primary data was collected using questionnaires; investigate the influence of claim cost on insurance performance for two (2) consecutive years from the period of 2014-2015. The study implies that an increase in loss ratio led to a reduction in profit ratio, significant negative consequences; thus, justifying the view that business forecasting largely on the basis of past events experience alone offered limited predictive power and scope.

Behailu (2016) factors affecting insurance companies profitability in Ethiopia, this study used quantitative research approach using Panel data covering ten-year period from 2006–2015 for nine insurance companies. The study uses linear regression model, examines that the impact of claim cost /loss ratio on insurance performance for ten (10) year for the period of 2006-2015. The investigation implies that there is negative and significant relationship between loss ratio and profitability.

Batsirai W. M., Mbakisi D. and Tendai S. (2017) the study sought to examine factors affecting the performance of insurance companies in Zimbabwe. The researchers utilized secondary data from twenty short-term insurance companies. The data was for the period from 2010 to 2014. They used factor analysis and multiple linear regression models to determine the factors affecting performance and identifying their impact, the study concludes that Claims ratio significantly affect the performance of insurance companies in Zimbabwe.

Mehari & Aemiro (2013) this study was an attempt to explore the impact of the Ethiopian insurance companies' characteristics on their performance. Noted that the loss ratio of an insurance company as measured by the ratio of incurred claims to earned premiums was statistically significant to explain performance of insurance companies.

2.3.2 Commission Expense,

Wasike, Andrew Ngoya, EMBA (2016) conducted a study to explore Determinants of Profitability in the Insurance Sector in Kenya for the period 2014 and 2015. The study drew the sample of the study from 10 insurance companies out of the possible 11 composite insurance companies. Survey explained that significantly pre-dicted profit margins according to the data collected from the insurance companies under study. With regard to commission expenses his results showed an increase by 2.73% from 2014 to 2015 and an increase in disparity by 14.77%. This meant that the gap in commission expenses among insurance companies had widened. Insurance companies continued to pay out all forms of incentives to business intermediaries in the effort to increase top line (or market share) apparently without much regard to the impact of contribution by specific distribution channels to profitability. The moderate positive relationship to profit ratio ($r=0.565$, table 4.9) needs to be checked by insurance companies for sustainability in the medium-term and long-term.

Irem H. Prof. Bashir A. (2019) the purpose of this paper to identify the factors that affect the profitability of life insurance companies in India using a panel data. The study includes twelve life insurance companies for a period covering 2005-2015. In this study the result showed commission are insignificant in explaining the profitability of life insurance companies in India.

2.3.3 Expense Ratio

Batsiria W.M1, Mbakisi.D2 and Tendais3 (2017) the investigated showed expense ratio that significantly affect the performance of insurance companies in Zimbabwe.

impact of internal (micro) and external (macro) factors on profitability of insurance companies The research is conducted to analyze the impact of internal and external factors on the profitability of insurance companies, Panel data regression is used for analysis of life insurance companies in Pakistan for a period of 2006-2016. The findings of the study showed that Emg has significant and negative impact in case of performance measures ROA and INI whereas Emg has a positive and significant impact on UP.

Islam Abdeljawad Layth Mofid D. This study aimed to examine the factors that affect the profitability of insurance companies in Palestine. Balanced panel data was utilized from seven

insurance companies operating in Palestine from 2010 to 2017 to estimate a linear model between determinants theoretically determined to affect performance and the profitability of insurance firms the result showed negative relationship between the expenses ratio of the company and its profitability. The regression analysis shows a negative but insignificant relationship between expenses ratio and profitability with a coefficient of -0.0065 and significance of 0.9216.

Batsiria W.M1,Mbakisi.D2 and Tendais3(2017) The study sought to examine factors affecting the performance of insurance companies in Zimbabwe. We utilized secondary data from twenty short-term insurance companies. The data was for the period from 2010 to 2014.the investigated showed expense ratio that significantly affect the performance of insurance companies in Zimbabwe.

2.3.4 Inflation

Suheyli (2015) this study seeks to find the determinants of insurance companies' profitability in Ethiopia. In order to achieve this objective, the study used mixed research approach. Panel data covering eleven-year period from 2004 – 2014 are analyzed for nine insurance companies. The findings of the study showed examined in his paper inflation has insignificant influence on insurers' profitability.

Kanbiro O. D., Ayneshet A. A.(2019) the objective of this study was to investigate the factors affecting financial performance of insurance companies operating in Hawassa city Administration, Ethiopia. Study was 17 general insurance companies operating in, Ethiopia. 10 year audited financial statements from 2008 to 2018. The secondary data were collected by reviewing of financial statements and related published and unpublished materials to achieve the objective of this study. The investigated showed as one of the factors affecting the financial performance of insurance companies, the regression result of table 6.1 shows that inflation rate in Ethiopia has significant and negative influence on financial performance of insurance companies since p-value of $0.000 < 0.01$ which statistically significant at 1%.

2.3.5 Reinsurance dependency

Daniel (2017) the effect of financial risk on performance of insurance companies in Ethiopia. The study used balanced panel model in examining the regression model and collect data from eight insurance companies covering the period of sixteen (16) consecutive years, 2000-2015. The study result showed there was reinsurance risk (RIR) has a positive relationship with Ethiopian insurance companies' performance.

Based on Suheyli (2015) Determinants of Insurance Companies profitability in Ethiopia. the study used mixed research approach. Panel data covering eleven-year period from 2004 – 2014 the study showed that are analyzed for nine insurance companies. Analyzed the impact of reinsurance dependence on insurers' profitability remains ambiguous and further research is required. Thus this study unable to reject the null hypothesis which states there is no impact of reinsurance dependence on Ethiopian insurance companies profitability.

Gemchis (2017) This study intends to investigate the determinants of profitability in the insurance sector in Ethiopia with reference to general (non-life) insurance companies on basis of data covers six years (2011-2016) period the research showed Negative and insignificant relationship between profitability and reinsurance dependence among general insurance companies which implies that reinsurance dependence is not prime determinant of profitability in Mauritius and in Ethiopia during they conduct their studies.

Wasike, Andrew Ngoya, EMBA (2016) Determinants of Profitability in the Insurance Sector in Kenya: A Case of Composite Insurance Companies This study was an attempt to explore factors that had direct significant influence on the companies' profitability for the period 2014 and 2015. The study drew the sample of the study from 10 insurance companies out the possible 11 composite insurance companies. Reinsurance cost or premium is another important factor that can affect the profit margin of the insurance companies. The study examined the records of reinsurance premiums paid by insurance companies during year 2014 and 2015.

2.3.6 Return on Investment

Limits on Investment of Insurance Funds General Insurance Funds .The General Insurance Funds of an insurance company shall be invested in the manner prescribed hereunder: In Treasury Bills and bank deposits not less than 65% of admitted assets; Provided, however, that aggregate bank deposits (checking, savings and time deposits) held with any one bank shall not exceed 25% of total admitted assets; In investments in company shares not exceeding 15% of total admitted assets.

In real estate not exceeding 10% of total admitted assets; 10% of admitted assets in investments of the insurance company's choice. Long-term Insurance Funds The long-term Insurance funds of an insurance company shall be invested in the following manner: In Treasury Bills/Bonds and bank deposits not less than, in aggregate, 50% of total admitted assets; provided, however, that aggregated deposits (checking, savings and time deposits) held with any one bank shall not exceed 25% of total admitted assets.

Investments in company shares not exceed 15% of total admitted assets; Investments in real estate not exceeding 25% of total admitted assets; 10% of total admitted assets in investments of the insurance company's choice. (www.National bank of Ethiopia) insurance directive. EIC is the largest of in the industries this means EIC has huge amount of fund. But the investment directives restrict investment opportunities in area and also quota this affect the profitability of EIC because 65% of the fund is invest in treasury bills and fixed time deposit, but in the treasury bill and fixed time deposit return not above 7% but the other investment opportunity for instance share, real estate and rent the return is above 10% so the directive of national bank of Ethiopia is affect the portability of EIC.

According to tekalign (2018) effects of underwriting result and investment income to the profitability of private insurance companies in Ethiopia, The purpose of this study is therefore to investigate the effects of underwriting profit and investment income on profitability of Ethiopia's private Insurance market. The study conducted on all private insurance companies in the industry who operate on non-life insurance and who have also been operating at least for full five budget

years until 30th of June, 2017. The study Showed there was weak positive relationship between profit and investment income.

Mwangi,hezro k(2013)the relationship between underwriting profit and investment income for the general insurance industry in Kenya, The objective of study was to evaluate the relationship between underwriting profit and investment income. The target population was all the licensed non-life insurance companies in Kenya from year 2000 to 2011. The research result showed thatthere was weak positive relationship between profit and investment income.

Niño Datu (2016) the current study examined the association between Insurer-specific indicators and macroeconomics on profitability in Philippine non-life insurance market utilizing the panel data over the period of 2008 through 2012.The research result showed that the significant negative correlation between return on investment and profit.

2.3.7 Underwriting Result

Mwangi,hezrok(2013) the relationship between underwriting profit and investment income for the general insurance industry in Kenya, The purpose of this study was to examine the integration of underwriting profit and investment income at aggregate insurance industry level. The objective of study was to evaluate the relationship between underwriting profit and investment income the research result shownthere was weak positive relationship between profits and underwriting.

Suheyli (2015)This study seeks to find the determinants of insurance companies' profitability in Ethiopia. In order to achieve this objective, the study used mixed research approach. Panel data covering eleven-year period from 2004 – 2014 are analyzed for nine insurance companies.The findings of the study showed that underwriting risk has a negative influence on the insurer's profitability, since taking an excessive underwriting risk can affect the company's stability through higher expenses.

Asrat and Tesfahun (2016) This study analyzes the determinant of profitability of private insurance company in Ethiopia over the period from 2005 to 2015,eight private insurance companies' for the econometrics analysis of multiple regressions of fixed effect approach of panel data. The study result showedthat significant negative impact of underwriting risk on insurance companies' profitability.

Mathews A.G and Dr.Peter S.S (2017) the study investigated the determinants of financial performance of selected insurance firms in Nairobi County. The target population was 55 insurance firms investigated that the size of the firm was a significant factor affecting the profitability of insurance firms in the Kenyan insurance markets. Findings concluded that the value of gross premiums was a significant parameter of the profitability and efficiency of insurance firms. An excessive attention on marketing to grow premiums without a proportionate allocation of resources towards the management of their investment portfolios led to a negative effect on investment income of an insurance firm.

The Ethiopian case

Asrat and Tesfahun (2016) This study analyzes the determinant of profitability of private insurance company in Ethiopia over the period from 2005 to 2015, eight private insurance companies', the investigated result showed the coefficient of inflation was negative, but it was not statistically significant, (p-values 0. 531), thus the effect of inflation on Ethiopian insurers' profitability is not significant. The result suggested that inflation is not a determinant of insurers' profitability in Ethiopia. But inflation may have negative impact on insurer's profitability because inflation affects results of underwriting premiums, since policies are typically not adjusted periodically.

Teklit (2017) the purpose of this study was to identify the key factors that affect profitability of insurance companies in Ethiopia. Panel data covering 10 years period from 2005-06 to 2014-15 were analyzed for seventeen (17) insurance companies. The investigated showed inflation was insignificant impact on profitability of insurance companies.

Behailu (2016)) factors affecting insurance companies profitability in Ethiopia, this study used quantitative research approach using Panel data covering ten-year period from 2006–2015 for nine insurance companies. The research result shown the inflation could affect insurance companies' profitability influencing both their liabilities and assets. In expectation of inflation, claim payments increases as well as reserves that are required in anticipation of the higher claims, consequently reducing technical result and profitability. The result suggested that inflation is not a determinant of insurers' profitability in Ethiopia.

Gemachis (2017) This study intends to investigate the determinants of profitability in the insurance sector in Ethiopia with reference to general (non-life) insurance companies on basis of data covers six years (2011-2016) period. The study selected sample of twelve (12) insurance companies, the study showed that inflation is insignificant and it is not a prime determinant of profitability among the non-life insurance companies in Ethiopia.

According to tekalign (2018), concerning underwriting results), the effects of underwriting profit and investment income on profitability of Ethiopia's private Insurance market. The purpose of this study is therefore to investigate the study conducted on all private insurance companies in the industry who operate on non-life insurance and who have also been operating at least for full five budget years until 30th of June, 2017. Quantitative research technique has been used, the study shown there was weak positive relationship between profit and underwriting.

Summary for Reviews of Empirical Studies and research gap

An investigation of the factors affecting profitability has been more of focus on digging theoretical and empirical studies in finance research. Some of the previous researches that conducted For instance, Mehari & Aemiro (2013), Wasike, Andrew Ngoya, EMBA (2016), Behailu (2016) and Batsirai W. M., Mbakisi D. and Tendai S. (2017) indicated that is negative and significant relationship between Claim ratio and profitability. Whereas, under commission expense lack of sufficient research but Wasike, Andrew Ngoya, EMBA (2016) the result indicate commission expense positively related with profitability Irem H. Prof. Bashir A. (2019) result showed commissions are insignificant in explaining the profitability of life insurance companies in India. For instance tekalign (2018), and wangi, hezrok (2013), found positive relationship between underwrite result and profitability (Suheyli (2015), Asrat and Tesfahun (2016) and Mathews A.G and Dr. Peter S.S (2017) found inverse relationship between ROA and the firm underwrite result. And the other side for instance Teklit (2017), Behailu (2016), Gemachis (2017) and Suheyli (2015) the research result showed that inflation has insignificant influence on insurers' profitability. But Asrat and tesfahun (2016) and Kanbiro O. D., Ayneshet A. A. (2019) indicate that, Inflation has significant and negative influence on financial performance of insurance companies. And other side investment income lack of sufficient research but for instance tekalign (2018) and Mwangi, hezro k (2013) the result indicate

that, weak positive relationship between profit and investment income, in the other side Niño Datu (2016) significant negative correlation between return on investment and profit. For instance Anum R. Muhammad U. K(2018) and Batsiria W.M1, Mbakisi.D2 and Tendais3(2017) the result indicate that expense ratio significantly affect the performance of insurance companies in other side Islam Abdeljawad Layth Mofid D. indicate that expense ratio insignificantly affect the performance of insurance companies. For instance Daniel (2017) and Wasike, Andrew Ngoya, EMBA(2016) the result indicate that reinsurance dependency significantly influence on the performance of companies but Suheyli (2015) and Gemchis (2017) the result indicate that reinsurance dependency insignificantly influence on the performance of companies.

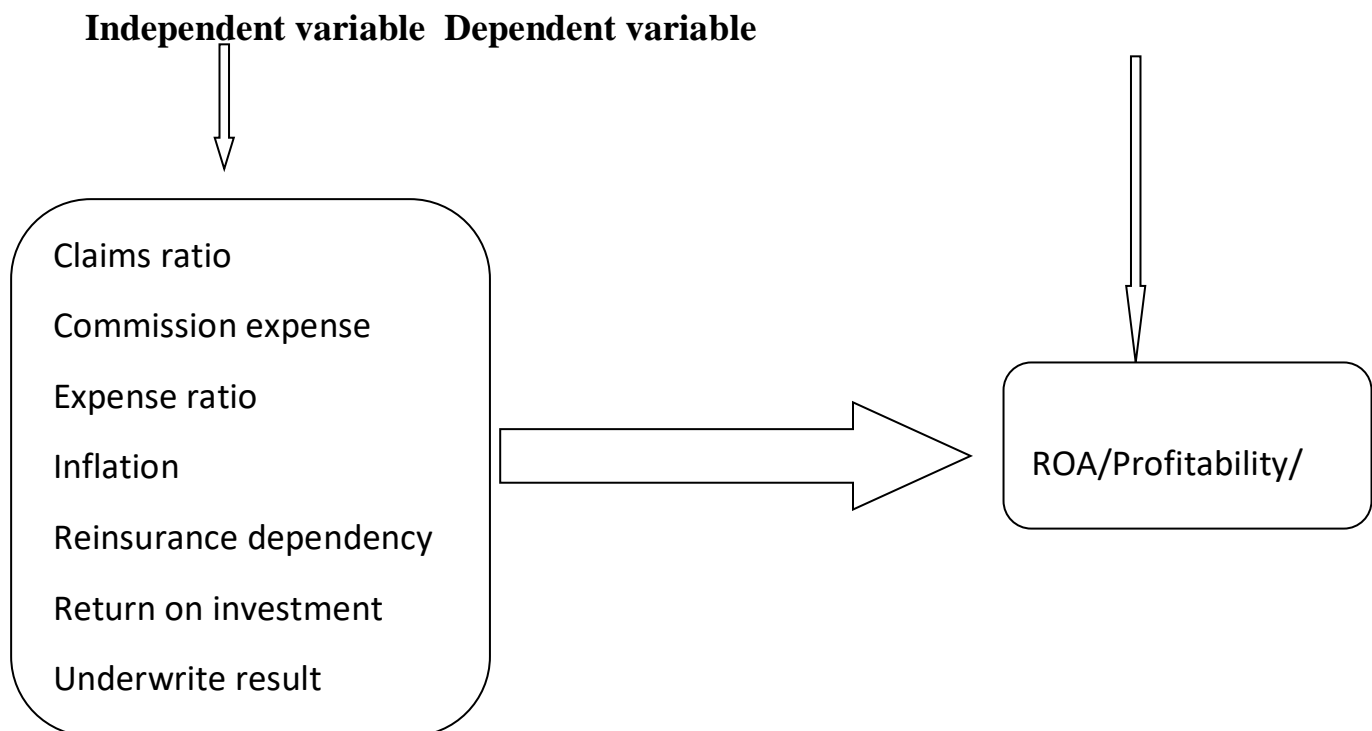
Insurance company's profitability can be affected by a number of determining factors that affect the profitability of insurance companies, but in this regard most of the studies investigate on factors that determine the profitability of insurance companies in Ethiopia, most of the papers done out of our country but some papers done in our country most of them focus on similar factors such as company size, leverage ratio, liquidity ratio, claims ratio, inflation and GDP and so on. but in this regard EIC report shown that claims ratio increase time to time however still there is no consistent variable to determine the profitability of insurance sectors and there is no enough empirical study which shows some determinant not sufficiently investigated for instance return on investment, expense ratio, and commission expense, the remaining variables are 5 variables such as claims ratio, inflation, reinsurance dependency and underwrite result investigated few studies but the existing political, economic and social condition is completely different from previous situation, so this study will try to know the current existing fact and, this study will show this factor to what extent affect the profitability of EIC and attempt to fill the aforementioned research gap by providing information about the extent of contribution of major factors that affect the profitability of EIC.

In general, lack of sufficient research studies conducted on the determinants factors of profit performance of insurance business in Ethiopia context, the existence of knowledge gap and the problem stated in the statement of the problem part instigate the researcher to conduct this study. Therefore, the intent of this research is to assess the determining factors that affect the profitability of insurance business in the case of EIC and to fill the knowledge gap that exists in the area by providing evidence from the findings of this study.

2.6 Conceptual Frame work

The aim of this section is to summarize the general idea from the past literature. The above theoretical and empirical review didn't shows clearly where there is a relationship between profit performance and the determinant factors stated in the statement of the problem part instigate the researcher to conduct determinant factors in the study area. Thus, the researcher will assess the determinant factors that affect profitability of insurance business in the case of EIC using the determinant factors. These independent variables include Claims ratio; Underwrite result; Commission expense; Expense ratio, Reinsurance dependency, Return on investment as shown in the following figure 2.1.

Figure 1.1 Relation between profitability and its Determinants.



Source: Self developed (2019) the researcher developed form literature review.

Chapter Three

2. RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents methodology that was used to conduct the study. It covers the research design, data collection instruments and procedures and the method of data analysis.

3.2 Research Design

A research design provides a framework for the collection and analysis of data. A choice of research design reflects decisions about the priority being given to a range of dimensions of the research process. Alan Bryman and Emma Bell

In this study, the researcher conducted the research using case study and data was collected from Ethiopia Insurance Corporation using eleven years data. The idea behind a case study is focus on collecting information about a specific object, event or activity such as a particular business unit or organization in case studies the case is the industrial, the group the organization, the events or the situation the researcher is interested in. Sekaran, Uma bougie, mroger(2016) Secondary source of data include Balance Sheet, Income statements and cash flow from the corporation and NBE. Secondary sources are the most reliable one, as these financial statements are already audited by independent auditors and accepted by the users of the information. Other macro level data are also obtained from the NBE (Research directorate).

3.3 Research approach

These designs have been elaborated into more complex relationships among variables found in techniques of structural equation modeling, hierarchical linear modeling, and logistic regression. John W. Creswell, (2014).

In this study quantitative approach was applied to ensure effectiveness of the research process and meet the objective of the research. Quantitative research is an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be measure, typically on instruments, so that number data can be analyze using statistical procedures. John W. Creswell, (2014).

3.4 Data and Data Sources

To comply with the research objectives, the researcher was focused on secondary data, which are obtained from annual financial reports of Ethiopian Insurance Corporation. And this is because the advantage of using secondary data includes the higher quality data compared with primary data collected by researchers themselves (Stewart and Kamins, (1993) as cited by Yuqi Li (2007)); the feasibility to conduct panel evidence, which is the case in this study; and the permanence of data, which means secondary data generally provide a source of data that is both permanent and available in a form that may be checked relatively easily by others, i.e. more open to public scrutiny. Therefore, enhance the reliability of the data.

Time series data is selected by the researcher in order to meet the research objectives as it best fits. Therefore, the secondary data from Ethiopia Insurance Corporation and NBE operating over the last 20 years was collected to answer the research objectives.

3.5 Methods of data Analysis and model specification

The data was examined and checked for completeness and comprehensibility. Furthermore, after the data was summarized, coded and tabulated to give the intended output. Descriptive statistics such as means, standard deviation and frequency distribution were used to analyze the data. The data was tabulated with the help of the Statistical Package for Social Sciences (SPSS) version 23. In addition, the analysis of this study was being performed using Descriptive, Pearson correlation analysis to observe significance relation between profitability and the determinants and multiple regressions to examine the impact of each determinant separately and as a whole.

Model specification

$$Y_i = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_nx_n + e_i$$

$$ROA_{it} = \beta_0 + \beta_1 (UR)_{at} + \beta_2 (RID)_{bt} + \beta_3 (CR)_{ct} + \beta_4 (ER)_{dt} + \beta_5 (ROI)_{et} + \beta_6 (CE)_{ft} + \beta_7 (INF)_{gt} + \epsilon$$

Where; ROA_{it} = dependent variable profitability; UR = Underwriting result; RID = Reinsurance dependency; CR = Claims ratio; ER = Expense ratio; ROI = Return on investment; CE = Commission Expense and; INF = inflation

ϵ = is the error component for EIC at time t assumed to have mean zero $E[\epsilon_{it}] = 0$ β_0 = Constant
 $\beta = 1, 2, 3 \dots 7$ are parameters to be estimated. i = Insurance company $i = 1 \dots 7$; and t = the index of time periods and $t = 1 \dots 10$

The general model of this study for the specified question with the explained independent and dependent variable will be as follows.

$$Y(x_{1,2,3,4,5,6,7,8}) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 + e$$

Where x_i 's - the independent variables (inflation, commission expense, claim ratio, return on investment, expense ratio, underwriting result and reinsurance dependency)

β_0 - is the constant

β_i 's ($i=1,2,3 \dots$) – unstandardized regression coefficient

$Y(x_{1,2,3,4,5,6,7,8})$ - dependent variable (ROA)

e - Error term

Furthermore, the fitness of the above model is tested by the R^2 . Which is explained by the combined effect of the independent variables on the dependent variable and checked by approximating the sum of the individual impact for independent variable to the dependent.

i.e

$$R^2 \approx (r_1 \beta_1 + r_2 \beta_2 + r_3 \beta_3 + r_4 \beta_4 + r_5 \beta_5 + r_6 \beta_6 + r_7 \beta_7) * 100 + e$$

Where R^2 - test of the model

r_i = correlation coefficient of Strategic HRM practice against OE

β_i = beta coefficient (standardized coefficients)

e - error term

Table 1.1 Measurements of Variables

CLASSIFICATION	VARIABLE NAMES	MEASUREMENTS	source	NOTATION	signs
DEPENDENT	Profitability (ROA)	Net Profit before Tax/Total Asset	(Lee, 2014)	ROA	
INDEPENDENT	Claim Ratio	(Incurred Claims/Earned Premium)*100	Wasik.A.N(2016)	CR	-
	Commission Expense	Commission Paid/Gross written Premium*100	Wasik.A.N(2016)	CE	-
	Expense Ratio	Total Expense/Premium Earned	investopedia	ER	-
	Inflation	(Inft-Inft-1)/Inft-1	(Hussain,2015and Nyamu, 2015)	INF	-
	Reinsurance Dependency	Premium Ceded/Total Asset	(Suyehli, 2015)	RID	+
	Return on Investment	Net Income /investment	study.com	ROI	+
	Underwriting Result	Premium Earned-Total Expense	wikipedia	UR	+

Chapter Four

Presentation, Data Analysis and Discussion

In this chapter the main body of the research was observed. This is because the chapter is presenting the nature of the data what it looks like as well as it shows how to analysis the hypothesis on chapter one and the discussion of the findings. The data were gathered from annual report of the insurance company for 20 consecutive years. This means that from the collected data which is presented in each of the table the researcher put appropriate technique of analysis method.

The presentation and analysis of the data were done to answer the basic research question raised in chapter one. Correlation and multiple regressions were employed to see the significance difference and the prediction power of each determinant on the profitability of the insurance company.

4.1 Descriptive data on the determinants and profitability of EIC

In this section descriptive statistics for the dependent; Return on Asset (ROA) and explanatory variables. Mean, maximum, minimum and standard deviation values are included in the table 4.1 below. These figures are gives overall description about data used in the regression models and what will be the correlation coefficient that the researcher is going to investigate the relation and impact of the determinants on profitability of EIC which is consolidated data of the 20 years' data on each determinant which is attached at the appendix of this paper.

Table 4.1 Descriptive statistics

Table 4.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
RETURN ON ASSET	20	.07	.21	.1051	.03880
UNDERWRITE RESULT	20	185217.33	1710603.00	750637.4294	513931.57080
REINSURANCE DEPENDENCY	20	.00	.21	.0689	.08160
CLAIMS RATIO	20	.00	1.71	.5299	.32131
COMMISSION EXPENSE	20	1.02	1895.91	892.8731	835.38294
EXPENSE RATIO	20	.09	.36	.1615	.07295
RETURN ON INVESTMENT	20	48.01	577.44	166.7220	160.82090
INFLATION	20	-86.52	383.34	42.5805	128.23612
Valid N (listwise)	20				

Source: - SPSS output from financial statement of EIC

The average profitability as measured by ROA for Ethiopian Insurance Corporation during the study period is about 0.1015 and the value of the standard deviation for ROA is 0.038 which implies the presence of good variations among the profitability across the years included for this study. The maximum and minimum values of ROA were 0.21 and 0.07 respectively. That means the at most profitable year the company earned 0.21 of net income from a single birr of asset investment. And the minimum amount that earned by insurance were of 0.07 cents on each birr of asset investment.

The above table also shows that a mean of 750637.42 with maximum and minimum of 1710603.00 and 185217.33 respectively on the underwrite result on the study periods with a standard deviation of 513931.57 which is good variability.

On the other hand the data also indicated that mean and standard deviation of reinsurance dependency is .0689 and .08160 respectively and the minimum and maximum value through the study period are .00 and .21 respectively the data shows there is moderate variability through the period on reinsurance dependency.

Similarly when we observed commission expense on the above data EIC incurred minimum cost of 1.02 and maximum cost 1895.91 with average 892.8731 and standard deviation 835.38294 this shows there is optimal variability among each years.

Similarly when we observed expense ratio on the above data EIC incurred minimum cost of .09 and maximum cost .36 with average .1615 and standard deviation .07295 this shows there is optimal variability among each years. This shows that for each unit of birr in ROA there is 0.36 birr expense.

The average value of loss ratio/ risk as measured by the ratio of incurred claims to earned Average is .5299 with a standard deviation of .32131. Therefore, it indicates that, the Ethiopian insurance corporation is low risky because they incurred an average .5299 cents of claim from a single birr of premium earned and there exists good variation among the level of riskiness across each year included in this study. The maximum and minimum values were 1.71 and 0.00 respectively.

On the other hand the data also indicated that mean and standard deviation of return on investment is 166.7220 and 160.82090 respectively and the maximum and minimum value through the study period are 577.44 and 48.01 the data shows there is good variability through the period on investment return.

The average inflation that occurred over the years is 42.5805 percent with the standard deviation of 128.23612. This indicates that there was high significant variation in inflation within the study period cover. The maximum and minimum inflation over the year were 383.34 and -86.52 respectively.

From the above result it is possible to say that loss ratio of the insurance company is positive .53 which indicate the premium earned of the insurance company is greater than incurred claim even higher cost is required. In this study, loss ratio is calculated by dividing the incurred claims with the earned premiums. Insurance companies that consistently experience high loss ratios may be in bad financial health. It shows that the insurance company had bad loss ratio 53% of the premium.

On the other hand, on the study period inflation is very high which accounts an average of 42.58. This is highly affect the profitability of EIC. This may be happening in the last four years' Ethiopian politics had been unrest which affect inflation as result profitability of insurance.

Similarly, from the above result it is possible to say that expense ratio of the insurance company is positive .0.1615 which indicate the premium earned of the insurance company is greater than incurred expense. In this study, expense ratio is calculated by dividing the incurred expense with the earned premiums. Insurance companies that consistently experience low expense ratios may be in good financial health. It shows that the insurance company had low expense ratio 16.15% of the premium.

It is also possible to say that there is only .0689%of reinsurance dependency which is insignificance through the period. Similarly the overall return on asset or profitability had a mean value of 10.51% which is low even if it accounts by different determinants.

The above result indicate only what looks like the descriptive nature of the data that tells only about the average value of profitability and its determinant. The value of each variable indicates what looks like in the study area and the significant impact of the independent variable on the dependent were discuss below part by part with the corresponding hypothesis.

4.2 Correlation analysis

The correlation between two variables measures the degree of linear association between them. Chris brooks (2014).

The researcher assumption on the first hypothesis the claim cost has significant negative relation with profitability. That means whenever the claim cost of the insurance company increase the profitability of EIC should significantly decrease. In order to test the researchers assumption pearson correlation coefficient test were used as follows.

H₁: There is a negative relationship between Claim cost and profitability of EIC.

The analysis of this hypothesis is running by Pearson correlation coefficient as follows

Table 4.2 Correlation between ROA and claim cost

		CLAIMS RATIO
RETURN ON ASSET	Pearson Correlation	-.005
	Sig. (2-tailed)	.984
	N	20

Source: - SPSS output from financial statement of EIC

From the above data it is possible to see that the correlation coefficient between ROA and claim cost is -0.005 with two tailed significance 0.984 of the 20 years.

From the data it is possible to conclude that there is negative relationship between Claim cost and profitability of EIC since Pearson correlation is -0.005. But the data shows that the correlation is not significance because p-value is 0.984 which is greater than 0.05 to have significant correlation.

Based on the above finding different researcher also investigate the following. Mehari & Aemiro (2013 statistically significant to explain performance of insurance companies.

The researcher's finding were concede with Wasike and Others (2016) The study implies that an increase in loss ratio led to a reduction in profit ratio, significant negative consequences; thus, justifying the view that business forecasting largely on the basis of past events experience alone offered limited predictive power and scope. Similarly Behailu (2016) there is negative and significant relationship between loss ratio and profitability.

The researcher assumption on the second hypothesis the underwriting result has significant positive relation with profitability. That means whenever the underwriting result of the insurance company increase the profitability of EIC should significantly increase. In order to test the researcher's assumption Pearson correlation coefficient test were used as follows.

H₂: There is a positive relationship between underwrite results and profitability of EIC.

The analysis of this hypothesis is running by Pearson correlation coefficient as follows

Table 4.3 correlations between ROA and underwrite results

		UNDERWRITE RESULT
RETURN ON ASSET	Pearson Correlation	.518
	Sig. (2-tailed)	.019
	N	20

Source: - SPSS output from financial statement of EIC

From the above data it is possible to see that the correlation coefficient between ROA and underwrite results is .518 with two tailed significance 0.019 of the 20 years.

From the data it is possible to conclude that there is positive relationship between underwrite results and profitability of EIC since Pearson correlation is 0.518. But the data shows that the correlation is significance because p-value is 0.019 which is less than 0.05 to have significant correlation.

According to tekalign (2018) the study shown there was weak positive relationship between profit and underwriting .Mwangi,hezro k(2013) the research result shownthere was weak positive relationship between profit and underwriting.

Suheyli (2015)this studyThe findings of the study showed that underwriting risk has a negative influence on the insurer's profitability, since taking an excessive underwriting risk can affect the company's stability through higher expenses.

The researcher assumption on the third hypothesis return on investment has significant positive relation with profitability. That means whenever the return on investment of the insurance company increase the profitability of EIC should significantly increase. In order to test the researcher's assumption Pearson correlation coefficient test were used as follows.

H₃: There is a positive relationship between return on investment and profitability of EIC.

The analysis of this hypothesis is running by Pearson correlation coefficient as follows

Table 4.4 Correlation between ROA and return on investment

		RETURN ON INVESTMENT
RETURN ON ASSET	Pearson Correlation	.837
	Sig. (2-tailed)	.000
	N	20

Source: - SPSS output from financial statement of EIC

From the above data it is possible to see that the correlation coefficient between ROA and return on investment is .0837 with two tailed significance 0.000 of the 20 years.

From the data it is possible to conclude that there is positive relationship between return on investment and profitability of EIC since Pearson correlation is 0.837. And the data shows that the correlation is significance because p-value is 0.000 which is less than 0.05 to have significant correlation.

Researchers like tekalign (2018) the study Shown there was weak positive relationship between profit and investment income.

Mwangi,hezro k(2013)the research result shownthere was weak positive relationship between profit and investment income.

The researcher assumption on the fourth hypothesis commission expense has significant negative relation with profitability. That means whenever the commission expense of the insurance company increases the profitability of EIC should significantly decrease. In order to test the researcher's assumption Pearson correlation coefficient test were used as follows.

H₄: There is a negative relationship between commission expense and profitability of EIC.

The analysis of this hypothesis is running by Pearson correlation coefficient as follows

Table 4.5 Correlation between ROA and commission expense

		COMMISSION EXPENSE
--	--	--------------------

RETURN ON ASSET	Pearson Correlation	.474
	Sig. (2-tailed)	.035
	N	20

Source: - SPSS output from financial statement of EIC

From the above data it is possible to see that the correlation coefficient between ROA and commission expense is .0.474 with two tailed significance 0.035 of the 20 years.

From the data it is possible to conclude that there is positive relationship between commission expense and profitability of EIC since Pearson correlation is 0.474. But the data shows that the correlation is significance because p-value is 0.035 which is less than 0.05 to have significant correlation

On the researcher finding Wasike,Andrew Ngoya,EMBA(2016) The moderate positive relationship to profit ratio ($r=0.565$,) needs to be checked by insurance companies for sustainability in the medium-term and long-term.

4.3 Regression analysis results and discussions

Regression is concerned with describing and evaluating the relationship between a given variable and one or more other variables.Chris brooks (2014)

The researcher assumption on this hypothesis were on significant impactof claims ratio on profitability. That means the predictive power of the independent variable separately check with linear regression model. Whenever other things are constant claims ratio has negative impact on the profitability of EIC which affect significantly. To investigate the question justified above the researcher use multiple linear regression models by observing regression output tables from the SPSS results of a combined observation.

Table 4.6. Model Summary of the predictive power of independent variables to the dependent variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.878 ^a	.771	.638	.02335
a. Predictors: (Constant), inflation, commission expense, claims ratio, return on investment, expense ratio, underwriteresult, reinsurance dependency				

Source: - SPSS output from financial statement of EIC

From the above table it is possible to observe that R , R Square, Adjusted R Square and Std. Error of the Estimate were .878, .771, .638 and .02335 respectively.

Thus it is possible to conclude that the predictive power of the independent variables (inflation, commission expense, and claim ratio, return on investment, expense ratio, underwriting result and reinsurance dependency) on the dependent variable (Profitability).771 or 77.1%

Table 4.7 ANOVA the existence of significance descriptive power of

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.022	7	.003	5.779	.004 ^b
	Residual	.007	12	.001		
	Total	.029	19			
a. Dependent Variable: RETURN ON ASSET						
b. Predictors: (Constant), INFLATION, COMMISSION EXPENSE, CLAIMS RATIO, RETURN ON INVESTMENT, EXPENSE RATIO, UNDERWRITERESULT, REINSURANCE DEPENDENCY						

Source: - SPSS output from financial statement of EIC

From the above table it is possible to observe the p-value for predictive power of independents variables on the dependents is 0.004 which indicates there is a significance predictive power.

Table 4.8 on beta coefficients of Un standardized and Standardized Coefficients

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.077	.036		2.153	.052
1 UNDERWRITE RESULT	1.172E-008	.000	.155	.907	.382
REINSURANCE DEPENDENCY	-.152	.204	-.319	-.744	.471
CLAIMS RATIO	6.106E-005	.018	.001	.003	.997
COMMISSION EXPENSE	-1.599E-005	.000	-.344	-.776	.453
EXPENSE RATIO	.085	.086	.159	.982	.345
RETURN ON INVESTMENT	.000	.000	.749	4.176	.001
INFLATION	-3.036E-006	.000	-.010	-.067	.947

a. Dependent Variable: RETURN ON ASSET

Source: - SPSS output from financial statement of EIC

Dependent Variable: effectiveness on internal processing Predictors: (Constant), Underwriting result, Reinsurance dependency, claim ratio, commission expense, expense ratio return on investment and inflation

From the above table and modal summary the unstandardized coefficient of Underwriting result , Reinsurance dependency , claim ratio, commission expense ,expense ratio return on investment and inflation were 1.172×10^{-8} , $-.152$, 6.106×10^{-5} , -1.59×10^{-5} , $.085$, $.000$ and -3.036×10^{-6} with t-value $.155$, $-.319$, $.001$, $-.344$, $.159$, $.749$ and $-.010$ respectively having p-value $.382$, $.471$, $.997$, $.453$, $.345$, $.001$ and $.947$ respectively for each independent variable (Underwriting result , Reinsurance dependency , claim ratio, commission expense ,expense ratio return on investment and inflation)

From the above data the average Underwriting result ($b=1.172 \times 10^{-8}$) is has not a significant impact ($p=0.382$) which is greater than 0.05 and the coefficient is positive which would indicate the more emphasis on Underwriting result is related to higher ROA. The average Reinsurance dependency ($b= -.152$) has not a significant impact ($p=0.472$) which is greater than 0.05 and the coefficient is negative which would indicate the more emphasis on Reinsurance dependency is related to lower Profitability (ROA). Similarly the average claim ratio (6.106×10^{-5}) has not a

significant impact ($p=0.997$) which is greater than 0.05 and the coefficient is positive which would indicate the more emphasis on claim ratio increase ROA.

The average commission expense ($b= -1.59 \times 10^{-5}$) is not a significant impact ($p=0.453$) which is greater than 0.05 and the coefficient is negative which would indicate the more emphasis on -1.59×10^{-5} is related to decreasing ROA. The average expense ratio ($b=.085$) has not a significant impact ($p=0.345$) which is greater than 0.05 and the coefficient is positive which would indicate the more emphasis on expense ratio is related to a higher in ROA.

The average return on investment ($b= .000$) has a significant impact ($p=0.001$) which is less than 0.05 and the coefficient is zero which would indicate the return on investment is a determinant in this study. Similarly The average inflation ($b=-3.036 \times 10^{-6}$) has not a significant impact ($p=.947$) which is greater than 0.05 and the coefficient is positive which would indicate related to inflation will enhance EIC increasing in ROA.

The model for the above explanation will be:

$$Y(x_i) = 0.077 + 1.172 \times 10^{-8} x_1 + -.152 x_2 + 6.106 \times 10^{-5} x_3 + -1.59 \times 10^{-5} x_4 + .085 x_5 + 0.000 x_6 + -3.036 \times 10^{-6} x_7 + e$$

Where x_i 's are independent variables in corresponding order on the table

And

$$R^2 \approx (r_1 \beta_1 + r_2 \beta_2 + r_3 \beta_3 + r_4 \beta_4 + r_5 \beta_5 + r_6 \beta_6 + r_7 \beta_7) * 100$$

Where r_i - correlation coefficient of SHRM practice with effectiveness on internal processing and β_i =beta the corresponding coefficient (standardized coefficients).

$$77.1\% \approx (0.518 * 0.155 + -0.471 * -0.319 + 0.474 * -.0344 + 0.470 * 0.159 + 0.837 * 0.749 + -0.192 * -0.10 + -0.005 * 0.001) * 100 = 77.1\%$$

4.4 Regression Model (CLRM) Assumptions and Diagnostic tests

These were required to show that the estimation technique, ordinary least squares (OLS), had a number of desirable properties, and also so that hypothesis tests regarding the coefficient estimates could validly be conducted. Specifically, it was assumed that: Chris Brooks (2014)

4.4.1 Constant term assumption

The regression model used in this study included a constant term, this assumption was not violated.

If a constant term is included in the regression equation, this assumption will never be violated.

Based on Brooks (2008)

The errors have zero mean ($E(u_t) = 0$).

4.2.2 Test for Heteroskedasticity

Homoscedasticity (variance of the errors is constant ($\text{Var}(u_t) = \sigma^2 < \infty$)) the assumption of homoscedasticity stated that the variance of the errors is constant. If the residuals of the regression have systematically changing variability over the sample, that is a sign of heteroscedasticity.

Table 4.9 Test Breusch Pagan godfrey

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.711890	Prob. F(7,4)	0.6747
Obs*R-squared	6.656711	Prob. Chi-Square(7)	0.4655
Scaled explained SS	0.531206	Prob. Chi-Square(7)	0.9993
R-squared	0.554726	Mean dependent var	0.006279
Adjusted R-squared	-0.224504	S.D. dependent var	0.007860
S.E. of regression	0.008698	Akaike info criterion	-6.416719
Sum squared resid	0.000303	Schwarz criterion	-6.093448
Log likelihood	46.50032	Hannan-Quinn criter.	-6.536406
F-statistic	0.711890	Durbin-Watson stat	3.019759
Prob(F-statistic)	0.674723		

Source: - Eviews output from financial statement of EIC

The above table 4.9, shows that the test result for regression analysis's p-values are considerably in excess of 0.05, it indicates that there is no evidence for the presence of heteroscedasticity in this study.

4.4.3 Autocorrelation

The other basic diagnostic test assumption is the assumption of classical linear regression model is Autocorrelation.

In this study, The Durbin-Watson statistics is 1.3450. The result falls in the inconclusive zone. In order to do a general test for autocorrelation the Breusch-Pagan-Godfrey test was conducted.

The 5th order autocorrelation is found out to be insignificant therefore the statistical insignificance imply absence of autocorrelation.

- Reject H O: Positive autocorrelation between 0 and 1.366
- Inconclusive: Neither reject not accepted between 1.366 and 1.741
- Don't reject H O: evidence No of autocorrelation between 1.741 and 2.259
- Inclusive: Neither rejected nor accepted between 2.259 and 2.634
- Reject H O: Negative autocorrelation between 2.2634 and 4. Brooks (2008).

In this study, The Durbin-Watson statistics is 1.3450. The result falls in the reject zone. In order to do a general test for autocorrelation the Breusch-Pagan-Godfrey test was conducted. The 5th order autocorrelation is found out to be insignificant therefore the statistical insignificance imply absence of autocorrelation.

Table 4.10 Breusch Gpdfrey serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.828927	Prob. F(2,8)	0.4708	
Obs*R-squared	3.261514	Prob. Chi-Square(2)	0.1958	
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.004350	0.044149	-0.098537	0.9239
CE	-2.23E-06	2.53E-05	-0.088130	0.9319
CR	-0.007810	0.017781	-0.439206	0.6721
ER	0.036117	0.138632	0.260525	0.8010
INF	-1.31E-06	4.34E-05	-0.030180	0.9767
RID	0.011740	0.239321	0.049055	0.9621
ROI	-1.29E-05	5.22E-05	-0.247414	0.8108
UR	-7.46E-09	1.45E-08	-0.513492	0.6215
LAGROA	0.120210	0.280186	0.429036	0.6792
RESID(-1)	-0.594321	0.500138	-1.188315	0.2688
RESID(-2)	-0.402455	0.615960	-0.653379	0.5318
R-squared	0.171659	Mean dependent var	2.10E-18	
Adjusted R-squared	-0.863768	S.D. dependent var	0.015730	
S.E. of regression	0.021475	Akaike info criterion	-4.550986	
Sum squared resid	0.003689	Schwarz criterion	-4.004205	
Log likelihood	54.23437	Hannan-Quinn criter.	-4.458449	
F-statistic	0.165785	Durbin-Watson stat	2.179846	
Prob(F-statistic)	0.994735			

Source: - Eviews output from financial statement of EIC

The above table show the F statics and Obs*R-squared value is above .05 therefore there is no autocorrelation problem.

4.4.4 Test for Multicollinearity

An implicit assumption that is made when using the OLS estimation method is that the explanatory variables are not correlated with one another. If there is no relationship between the explanatory variables, they would be said to be orthogonal to one another. If the explanatory variables were orthogonal to one another, adding or removing a variable from a regression equation would not cause the values of the coefficients on the other variables to change. Chris Brooks (2014).

Table 4.11: Colliniarity of independent variables

Table 4.11 Coefficients^a

Model	Collinearity Statistics	
	Tolerance	VIF
1 UNDERWRITERESULT	.652	1.534
CLAIMS RATIO	.907	1.103
COMMISSION EXPENSE	.614	1.630
EXPENSE RATIO	.723	1.382
INFLATION	.868	1.152
RETURN ON INVESTMENT	.594	1.683

a. Dependent Variable: REINSURANCE DEPENDENCY

Source: - Eviews output from financial statement of EIC

Detecting multicollinearity problem Using substitute independent variable as and dependent variable.

From the above table 4.13 indicates that is SPSS result of collinearity diagnostic test if the VIF variance inflation factor/the collinearity result is below 10 means there is no existence of multicollinearity problem therefore the above table indicates all VIF result is below 10 there is no existence of multicollinearity problem .

Chapter Five

Summary, conclusion and Recommendation

5.1 Summary

The primary objective of this study was to investigate factors that affect profitability of EIC.

Among money insurance company in Ethiopia this study were conducted on EIC form the annual report of 20 consecutive years. In order to collect valid and reliable data an instrument financial report of the company were employed. The collected data were analyzed using results of descriptive statistics, Pearson correlation, linear regression and Analysis of variance (ANOVA). Finally, the analysis yields the following findings.

1. The major finding of this study is thus, there is no significance impact of determinants of ROA .and significance relation between the determinants and ROA whatever they have positive or negative correlation. Only there is a significance positive relationship between ROI and There is an insignificance negative relationship between Claim cost and profitability of EIC with Pearson correlation -0.005 and $P=0.984$
2. There is an insignificance positive relationship between underwriting surplus and profitability of EIC with Pearson correlation 0.518 and $P=0.019$
3. There is a significance positive relationship between ROI and profitability of EIC with Pearson correlation .837 and $P=0.000$
4. There is an insignificance positive relationship between Commission expense and profitability of EIC.with Pearson correlation .0.474 and $P=0.035$
5. Multiple regression ($R_{xy1234567}=0.878$) which indicate there is a relation between independent variables Underwriting result , Reinsurance dependency , claim ratio, commission expense ,expense ratio return on investment and inflation and ROA. It was also observed from the coefficient of multiple determination that ($R^2=0.771$), 77.1% of the variation in ROA at EIC was accounted by variability in the Seven of the predictor as a group. The contribution of Underwriting result, Reinsurance dependency, expense ratio ,return on investment, claims ratio, commission expense and inflation enhance by

22.8%, 22.2% 22.1%, 70.1%, 0.0%,22.4% and .3.7%respectively. The major finding of this study is thus, there is no significance impact of determinants of ROA .and significance relation between the determinants and ROA whatever they have positive or negative correlation. Only there is a significance positive relationship between ROI and profitability of EIC.

5.2 Conclusions

The role of financial institutions in the economy of a country in general and insurance companies in particular is vital in savings mobilization, risk transfer, intermediation and stabilizing economic activity (Sambasivam & Abate, 2013).

Despite the fact that the determinant factors for profitability of insurance business are several in numbers, this study was limited only to those factors that have direct and immediate effect on profitability of EIC. The majors, among others, these are claim cost, underwriting result, commission expense, Expense ratio, Return on Investment (ROI), inflation and reinsurance dependency.The sample in this study includes for eleven years (2000-2019). Secondary data was obtained from the financial statements (Balance sheet and Profit/Loss account) of Ethiopian Insurance Corporation, and financial publications of NBE are going to be analyzed. This study was primarily a case study and therefore, the research was employed quantitative research approach. The data was analyzed with the help of the Statistical Package for Social Sciences (SPSS) version and Eviews.

The major focus of this study was to see determinants (factors of) EIC on its profitability accordingly, the findings of this study indicate that there is no significant impact of inflation, claims ratio, reinsurance dependence, underwrite result, commission expense and expense ratio whatever positive or negative impact.

There is positive significance relationship between return on investment and ROA in EIC.

There is no significance relation on claim cost, underwriting result and commission expense with ROA in EIC.

5.3 Recommendations

Based on the findings of this study, suggestion about the practical implication and further investigation were forwarded for concerned bodies.

1. Return on investment is the most important determinant of EIC profitability, EIC should focus the investment opportunity to grow their profitability and diversified their investment opportunity.
2. According to other remain variables, underwrite result, Claim cost, commission expense, and expense ratio, inflation and reinsurance dependency no significant impact and also no significance relation, therefore constant flow up and keeping their effort
3. Finally, this study attempted to look at some of the factors did not cover all factors that could affect EIC profitability. And should focus on some other dimensions of qualitative aspects such as directives and government regulatory policy the effect of management quality, the quality of manpower, service quality, or management tools. Some important information to the insurer to win some unfair advantage), public attitude/awareness/ towards the concept of insurance in Ethiopia, and other issues which the researcher is not knowledgeable with.

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Appendix 1

Correlations Matrix of variable

	RETURN ON ASSET	UNDERWRITE RESULT	REINSURANCE DEPENDENCY	COMMISSION EXPENSE	EXPENSE RATIO	RETURN ON INVESTMENT	INFLATION	CLAIMS RATIO
RETURN ON ASSET	1	.518*	-.471*	.474*	.470*	.837**	-.192	-.005
UNDERWRITE RESULT	.518*	1	-.381	.392	.468*	.402	-.036	-.107
REINSURANCE DEPENDENCY	-.471*	-.381	1	-.946**	-.189	-.519*	-.013	-.126
COMMISSION EXPENSE	.474*	.392	-.946**	1	.205	.564**	-.025	.135
EXPENSE RATIO	.470*	.468*	-.189	.205	1	.329	-.224	-.004
RETURN ON INVESTMENT	.837**	.402	-.519*	.564**	.329	1	-.204	.022
INFLATION	-.192	-.036	-.013	-.025	-.224	-.204	1	-.196
CLAIMS RATIO	-.005	-.107	-.126	.135	-.004	.022	-.196	1

Appendix 2
Test of collinearity result

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	UNDERWRITERESULT	.652	1.534
	CLAIMS RATIO	.907	1.103
	COMMISSION EXPENSE	.614	1.630
	EXPENSE RATIO	.723	1.382
	INFLATION	.868	1.152
	RETURN ON INVESTMENT	.594	1.683

Appendix 3

DATA USE IN THE STUDY

Year	ROA	UR	RID	CR	CE	ER	ROI	INF
2000	0.101069	191118.1	0.087487	0.563539	1.255185	0.11725	48.00614	25
2001	0.079694	185217.3	0.102698	0.636837	1.398497	0.12992	54.16255	36
2002	0.072474	214181.3	0.20504	0.578293	1.022494	0.10683	60.52966	-64.71
2003	0.084055	296438.7	0.170009	0.361175	1.30224	0.090439	70.87053	86.52
2004	0.094164	268727.2	0.183441	0.39627	1.102561	0.097456	78.79828	-86.52
2005	0.082114	271273.6	0.153852	0.35148	1.133488	0.11318	77.60927	383.34
2006	0.070756	312868	0.157617	0.593177	1.295815	0.10437	75.07503	12.07
2007	0.07209	353930	0.000176	0.548859	1338.489	0.150032	66.72303	32.31
2008	0.072601	432746	0.000196	0.453132	1895.913	0.151305	88.95818	158.14
2009	0.077455	485571	0.000212	0.456635	1795.384	0.153898	135.3363	-80.85
2010	0.092721	796041	0.000275	1.706074	1671.961	0.103641	216.6575	-17.65
2011	0.087499	1161495	0.000269	0.300979	1562.227	0.105395	112.4687	374.29
2012	0.118341	1710603	0.000249	0.297351	1426.705	0.125186	78.09956	29.52
2013	0.130972	1002587	0.000376	-0.00403	1533.248	0.188587	405.1947	-64.1
2014	0.151697	1070747	0.000241	0.516742	1653.732	0.202687	540.9814	-11.9
2015	0.213907	1282736	0.000184	0.538375	1676.658	0.178374	577.4426	36.49
2016	0.148812	1374436	0.000191	0.552872	1586.523	0.188265	207.224	-23.76
2017	0.169008	706445	0.000212	0.795804	1705.58	0.361536	265.2676	5.19
2018	0.09532	1495620	0.170305	0.498424	1.452436	0.26335	76.25785	22.23
2019	0.088124	1399967	0.145876	0.456066	1.077734	0.297439	98.77723	0