Addis Ababa University

School of Graduate Studies

Analysis of Market Power and Competitiveness of Ethiopian Insurance Industry

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This is to certify that the project prepared by Shimelis Beyene in titled: Analysis of Market Power and Competitiveness of Ethiopian Insurance Industry and submitted in partial fulfillment of the requirements for the degree of the Degree of Master of Arts (Competition Policy Analysis and Regulatory Economics) complies with the regulations of the university and meets the accepted standards with respect to originality and quality.

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Abstract

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Competition in the economy can create a positive prospect for economic growth and development of a country. Competition in Ethiopian financial sector in general and insurance industry in particular should be strong enough for enhancement of efficiency, provision of better service to customers, greater innovation and lower prices thus resulting in improvement of consumers welfare and overall economic growth of the country. Since the introduction of modern financial sector in Ethiopia in 1905, the market structure of insurance industry in Ethiopia is characterized by competition and monopoly depending on the financial policies issued by the ruling governments of the country.

This paper studies the existence of market power in the Ethiopian insurance industry during 2001-2010, using non-structural measures of market power such as market share and Lerner index. And hence insurance market concentration is measured by using Herfindahl-Hirschman Index (HHI) and four largest insurers' concentration ratio (CR). These measures suggest the existence of market power in insurance industry of Ethiopia and the sector was dominated by the single state owned Ethiopian Insurance Corporation (EIC). The major source of dominance tends towards government regulation that is prohibition of foreign investors in financial sector of the country in general and insurance sector in particular. The study also reveals that Ethiopian insurance market is highly concentrated and the top four insurers holds above 70% of the market share in terms of gross premium, total asset and capital.

Key words: market power, market concentration, market dominance, entry barrier.

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Dedication

This bit of work is dedicated to my beloved mother, Ejegayehu Kiberet who raised her children both as mother and father as well.

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Acronyms

NBE	National Bank of Ethiopia
EIC	Ethiopian Insurance corporation
WTO	World trade organization
FSTL	Financial trade service liberalization
OECD	Organization for economic cooperation and development
HHI	Herfindahl-hirschman index
CR	Concentration ratio
SPSS	Statistical package for the social science
UNCTAD	United nations conference on trade and development
SSNIP	Significant non-transitory increase in price
CSA	Central statistics agency
EEA	Ethiopian economic association

Chapter one

Introduction

1.1. Background

The financial service industry is an industry encompassing a broad range of financial institutions that deal with management of financial capital. These financialmarketsand institutions are central for economic development and growth. Honohan and Beck (2007) argued that having a deeper financial system contributes to growth and is not simply a reflection of prosperity. Furthermore, Mc Vaish (1989) suggested that financial market development is important for the economic growth. Therefore, financial sectors in general and insurance industry in particular play significant role in economic development of the country.

Now a day's insurance is one of the cornerstones of modern day financial services sector. In addition to its traditional role of managing risk by indemnification, the insurance industry can promote long term savings and serves as a medium to channel funds from policy holders to investment opportunities including mortgage lending (Vayanos and Hammoud, 2007). Also insurance industry plays a number of roles such as contributing towards employment generation, strengthening linkage with other sectors of the economy such as banking to promote growth and stability, and creating sizeable impacts on the national income of the country. But in developing countries like Ethiopia, the roles of insurance depend on individual disposable income, religious conviction and policy of government.

In order to achieve the advantages explained above, it is important to place a greater concern to promoting and substantially improving the competitiveness of the financial sector in general and the insurance industry in particular. StijnClaessens (2009)argued that even if changes in financial service industry require updated competition policies and institutional arrangements, developing countries financial sector face some specific competition challenges. This is due to the fact that in developing countries in general and Africa in particular, the development of financial sector especially insurance industry is at its infant stage.

The financial industry in Ethiopia includes banking, insurance, and micro-finance institutions. Like most developing countries, insurance industry in Ethiopia is not well developed. Smith and Chamberlin (2010) found that Insurance premiumin Ethiopiaincluding both life and general insurance was US $105million in the 2007 financial year, and represented only 0.2% of the GDP in 2007. But the contribution of insurance premium to GDP in South Africa, Namibia and Kenya is 15.3, 8.1% and 2.5% respectively during the same period.

Proclamation No. 86 /1994, which is named as "the Licensing and Supervision of Insurance Business", is presently used as a legal base for insurance industry in Ethiopia. To liberalize insurance sector, this proclamation allows domestic private sectors to invest in insurance industry. But this Proclamation strictly prohibited foreign insurers from entering to the Ethiopian insurance industry. The minimum capital required to establish general (non-life) insurance, life insurance and composite insurance company is 3 million, 4million and 7 million Ethiopian birr respectively.

According to the National Bank of Ethiopia (NBE), the total number of insurance companies currently operating in Ethiopia is 13. Out of these 12 are owned by the private sector. And only 1, that is Ethiopian Insurance Corporation (EIC), is owned by the state. Whereas, two insurers (Tsehaye Insurance S.C, and Debube Global Insurance S.C) both owned by the private sector are being on process to begin operation.

Ethiopian insurance industry includes primary insurers, reinsurer, and agency and brokerage firms. Of the 13 insurance companies which are currently operating, 9 had composite insurance license which enables them to provide both general and life insurance services. There is only 1 life insurance and the rest are general insurance. There is no domestic reinsurance company in Ethiopia yet. But in order to spread risk and provide greater security, some insurers made reinsurance agreement with foreign insurance companies.

1.2. Statement of the problem

International trade in goods and services has come to be increasingly significant in recent decades. In order to promote such trade a number of insurance companies have also become international. This process has promoted and re-enforced by world trade organization (WTO) since its establishment in 1995. Financial services trade liberalization (FSTL) aim at reducing or even totally removing all trade barriers in financial services sector by allowing potential foreign financial firms in sectors such as insurance, banking and securities to enter the host country and enjoy national treatment.

In general if the number of firms in the market is small, then the lesser will be the competition among them. This condition will allow these fewer firms to communicate easily and agree to fix price higher than the marginal cost. But number of firms in a market is not a sufficient condition to determine the competitiveness of the market. What matters is the capacity of firms to compete each other. Regarding this issue, (Melanie S. Milo 2003) argued that, the existence of large number of firms in the industry does not mean that the market is automatically competitive.He added that competitiveness of the market is highly influenced by the degree of market contestability. Contestable markets are characterized by operating under the threat of entry.

Therefore the presence of foreign insurers does not automatically mean that the insurance market is competitive and more advanced in terms of product development. On the other hand, high level of industry concentration is not necessarily bad. The concern with excessive concentration is that it is a potential source of monopoly power. Thus there is a need to monitor the concentration process even in deregulated environment to detect any further strengthening of the oligopolistic group and ensure that it does not lead to the abuse of the market power.

Beck and Webb (2002) argued that lack of competition and inefficient insurance regulation may increase the price of insurance without implying a high level of insurance consumption.A high degree of competition and efficiency in the insurance industry can contribute to great financial stability, product innovation, and access by households and firms to financial service, which can in turn improve the prospects for economic development of a country. In this case, the Ethiopian financial sectors in which entry of

foreign financial institutions are protected by the country's financial policy is one of the major setbacks for the economic development of the country. So identifying possible conditions that help to promote competition in financial sectors in general and insurance industry in particular will enable policy makers to formulate strong financial policy which accelerates economic development of the country.

Besides the theoretical complexity, empirical evidence on competition in the financial sector is scarce and often not clear yet. Much of the current literature relates performance indicators to countries' financial system structures and regulatory regimes without formal measures of competitiveness.

To the best knowledge of the researcher, no attempt was made to evaluate the market power and competitiveness of the Ethiopian insurance industry. So to fill the gap this study will start by questioning the existence of market power among the Ethiopian insurance companies. If they do have market power, they can actually change the market price of the insurance products or can engage in other forms of anti- competitive conduct. Therefore this study will concern with investigating the existence of market power in Ethiopian insurance industry and suggesting possible factors that will help to maximize the competitiveness of the sector.

1.3. Objective of the study

1.3.1. General objective

While there are numerous publications about performance, efficiency and/or profitability of financial sectors there has been relatively slight on the market power and competitiveness of insurance industry. Furthermore, an extensive review of literature on

market power and competition issues revealed that a few studies have been undertaken in western insurance companies. Unfortunately, little studies have been done on market power and competition in Africa in general and very few is known about this issue in Ethiopia in particular. Therefore, the main objective of this paper is to investigate the existence of market power in Ethiopian insurance industry and analyze the role of competition among insurers to enhance consumer welfare.

1.3.2 Specific objectives

Specifically, this study aims to:

- Assess the entry and exit condition to the Ethiopian insurance industry
- Evaluate existence of anti-competitive practice by the dominant insurer and forward possible recommendation to other insurers (competitors) that enable them to take legal measures.
- Analyze operational policy problems and recommend possible policy options for future development of the industry.

1.4. Testable hypothesis

In light of the above mentioned objectives, this study hypothesizes that:

- ✓ Market power in Ethiopian Insurance industry exists and insurers charge premium which is higher than marginal cost
- ✓ There is indirect relationship between Competition and market concentration of the insurance industry
- ✓ Ethiopian insurance industry is highly concentrated

- ✓ The state owned EIC dominates insurance market and commits anti-competitive conducts to drive out competitors from the market
- ✓ Entry and exit is not free in Ethiopian insurance industry

1.5. Significance of the Study

This paper attempts to examine the existence of market power and level of competitiveness of the insurance industry in Ethiopia. Hence it is expected to provide an important input for policy makers and regulators to formulate prudent financial policy and make sound regulatory decisions. The findings of this study will equip insurers to develop awareness about the importance of competition to stay in the market and how they claim towards the anti-competitive conducts committed by the dominate insurer. In addition, it may also serve as a springboard for those who would like to widen the perspective of the research area by dealing with anti-competitive practices that will face insurers in the long run. Furthermore, the study contributes in filling the gap in the empirical literature in the area and can motivate other researchers for further investigation.

1.6. Scope and limitation of the study

Investigating the market power and competitiveness of Ethiopian financial sectors (banking, insurance and micro-finance) will enable the researcher to give sound suggestion for policy makers and financial sector regulator. Furthermore, it helps readers to have overall knowledge about the subject area of the study. But due to time and

financial constraints the scope of this study is limited only to Ethiopian insurance industry.

1.7. Research methodology

In order to investigate the existence of market power in Ethiopian insurance industry, market share will be calculated based on individual insurer asset, insurance premium and capital deposited. Concentration of the industry will be examined by calculating concentration ratio (CR) of the largest four insurers and Herfindahl-Hirschman Index (HHI) of each insurer. To manipulate the data, the researcher will use statistical package for the social science (SPSS) or excel software. Also evidences that will be gathered from the relevant organizations concerning abuse of dominant position and market entry barrier will be discussed.

1.8. Data source

The quality of any research depends on accessibility and credibility of data. Therefore, it is very important to give due attention in collecting necessary data from appropriate sources. For the purpose of this research, total capital, insurance premium and total asset data of each insurer for the period 2001 to 2010 will be collected from NBE and appropriate insurance companies.

1.9. Organization of the study

This study will be divided into five chapters. Chapter one looks at introduction, statement of the problem, objectives of study, justifications and testable hypotheses. Chapter two looks at the literature review. This chapter includes definitions, objectives and general

terms used in this study. Chapter three looks at the overview of the Ethiopian insurance industry. This chapter looks at historical background and regulatory framework of insurance industry in Ethiopia. Chapter four looks at the methodology that the study employed. Chapter five presents the analysis relating to the various methods used for this study. It presents measurement of market power and hence concentration in Ethiopian insurance industry. The final chapter (six) looks at conclusion and recommendations.

Chapter two

Literature review

In this chapter, theoretical literature regarding market structure, measuring market power and concentration, dominant firm in uncompetitive market and other related issues reviewed first followed by discussing about the existing empirical evidences concerning competition in insurance industry.

2.1. Theoretical review

2.1.1. Market structure

In economics market structure refers to the state of a given market with respect to competition (McConnell and Campbell, 2008). A description of market structure indicates the number of sellers in the market, degree of their product differentiation, their cost structures, and the degree of vertical integration with suppliers and so on. Market structure determines what is called market conduct that is, the behavioral rules followed by the various agents such as the buyers, the sellers or even the potential entrants to choose the variables under their control. Finally, market performance (like efficiency, price-cost margin, profit etc.) is the result of market conduct. Such traditional analysis of market is firmly rooted in the structure-conduct-performance (SCP) paradigm developed by Bain (1951, 1956).

According to Bain(1951, 1956), it is the structure of the market that determines its performance, via the conduct of its participants. Performance is measured by the ability to charge a price above the competitive level, thereby earning a positive mark-up. In line with this paradigm the degree of concentration in a market has long been considered one

of its major structural characteristics and analysis of market structure then becomes a key indicator of actual or potential market power.

McConnell and Campbell (2008) classified market structure into perfectly competitive, monopoly, monopolistic competition and oligopoly. These forms of market have different degree of competition and thus show varying levels of efficiency.

2.1.1.1. Perfect competition

According to OECD (2002), competition is a situation in a market in which firms or sellers independently strive for the patronage of buyers in order to achieve particular business objectives such as profits, sales and/or market share. Also Richard (2005) defined competition in the commercial world as striving for the custom and business of people in the market place. Competition in this context is often equated with rivalry. Competitive rivalry between firms can occur when two firms or many firms are involved in the market. This rivalry may take place in terms of price, quality, service or combinations of these and other factors which customers may value.

Bruce and Stephen (2001) noted that competition is at the heart of the market-based economy. The debate about the relative merits of a market-based economy versus a state-controlled, planned economy that raged for decades seems to have been broadly settled in favor of the former. In markets characterized by pure or perfect competition, market force oblige suppliers to provide the product or service at a price consistent with the most efficient and lowest cost of production, where the cost of production includes a reasonable return on capital, or profit.

According to Samuelson and Nordhaus (1995) conditions required to ensure the efficiency of perfectly competitive markets include the following:

- ✓ many buyers and sellers: each participant is small in relation to the market and cannot affect the price through its own actions;
- ✓ neither consumption nor production generates spillover benefits or costs;
- ✓ free entry and exit from the market: new firms can open up shop and existing firms can leave the market without incurring cost as conditions change;
- ✓ The product sold should be homogenous or undifferentiated among suppliers;
- ✓ symmetric information- all market participants know the same things so that no one has an informational advantage over others;
- ✓ no transaction costs: the buyers and sellers incur no additional cost in making the transaction, and the complexity of decisions has no effect on choices; and
- ✓ Firms maximize profits and consumers maximize well-being.

In a perfectly competitive market sellers are price takers, not price makers, and the price of a product equals its marginal cost; each supplier makes only a normal profit. A perfectly competitive market is said to achieve both allocative efficiency and productive efficiency which maximize the overall welfare of the society (Martin, 2001). Allocative efficiency is achieved when the goods are produced in the quantities desired by society, and it is not possible to make anyone better off without making someone else worse off. Productive efficiency is achieved when goods are produced at the lowest possible cost, that is, as little of society's wealth is expended in the production process as is necessary. Competition also enhances dynamic efficiency in that it spurs innovation, development of new products and technological growth (Martin, 2001).

In practice, perfect competition never exists. When perfect competition does not exist, but the characteristics of perfect competition exist to such a degree that market outcomes approximate those that would occur in a perfectly competitive market or that produce price competition, a situation called “workable competition” (Byrns and Stone,1993)

21.1.2. Pure Monopoly

Pure monopoly is a market structure characterized by a single seller or producer, a unique product with no close substitutes, the ability of seller to ask any price it wishes, entry to the industry completely blocked by legal, technological or economical barriers to entry and no need for none price actions such as advertising of products, except public relations or goodwill advertising (Motta, 2004). Varian (1992) argued that monopolies are not common because monopolies are either usually regulated or prohibited altogether. He added that monopoly form of market is highly undesirable for the society because of the sizable loss of both productive and allocative efficiency: the price paid is higher than perfect competition and the quantity is smaller.

When sellers can raise the market price above the level that would occur in a competitive market, the cost to buyers is called deadweight loss (Motta 2004). The deadweight loss consists of reduced output and higher prices when there is a downward-sloping demand curve. That is, when prices are higher than would occur in a competitive market, buyers purchase fewer items. The combination of sellers’ ability to affect market price and inelastic demand for the product will result in consumers paying higher prices for the product and purchasing the product in the same amounts as if the price were lower, at a

level consistent with workable competition. Sellers in such a market will realize excess or monopoly profits.

In economic theory, however, the objection to monopoly is not only that the monopolist is able to charge excessively and reduce production, but also that monopoly is inefficient. The inefficiency arises out of higher costs, for example, through higher remuneration and excessive staff. A monopolist may also waste resources by maintaining excess capacity or indulging in excessive product differentiation (Liebenstein, 1966).

2.1.1.3. Monopolistic competition

One of the criticisms frequently addressed to the model of perfect competition is that it is based on the assumption of homogeneity of products, that is, all firms produce the same identical products. Concerning this issue for instance Cabral (2000) argued that there are many industries comprising a large number of firms (as the perfect competition model) whose products are not exactly identical.

To account for these types of industry Chamberlin (1933) proposed the model of Monopolistic competition which assumes that there is large number of firms, so that the impact of each firm upon its rivals is negligible as in perfect competition model. However, in monopolistic competition due to product differentiation, the demand curve faced by each firm is not horizontal because each firm is a price maker, not a price taker just like in perfect competition model. According to Cabral (2000) monopolistic competition model maintains all of the assumptions of perfect competition model except that of product homogeneity.

2.1.1.4. Oligopoly

Varian (1992) defined oligopoly as a market structure in which there are a few number of sellers and great interdependence between firms. The strategic interdependence between competitors in oligopolistic market structure implies that the action of firm 1 is likely to influence profit of firm 2 and vice versa. Therefore, firm 1's decision should take into consideration what it expects firm 2 to do so. As noted by Cabral (2000), oligopolistic market structure also has the following basic characteristics:

- ✓ A few large dominant firms, with many small ones
- ✓ A product either standardized or differentiated
- ✓ A power of dominant firms over price, but fear of retaliation
- ✓ Existence of technological or economical barrier to become a dominant firm
- ✓ Extensive use of none price competition because of fear of price war

There are various models of pricing decisions for oligopolies generally and duopolies specifically. Varian (1992) suggested that under Bertrand competition (price competition model) firm's price at the level of marginal cost. In the Cournot model (quantity competition) output is greater than monopoly output and lower than the perfect competition output.

2.1.2. Relevant market definition

In order to determine the market structure that the industry belongs to, it is important to estimate the extent to which the market deviates from the benchmark case of prefect competition. According to Motta (2008), this approach first requires defining the relevant market. The correct definition of the relevant antitrust market is an important feature of

an accurate competition analysis. A too narrowly defined market can lead to unnecessary competition concerns, and on the other hand, a too widely defined market may disguise real competition problems. This will certainly be the case if too much emphasis is placed on the market share arising from an 'incorrect' market definition.

Motta (2008) defined relevant market as the set of products and geographic areas to which the specific product or service belongs. Therefore, definition of markets from its product and geographic point of view is the first step in assessment of market power.

2.1.2.1. Product market definition

Richard (2007) defined product market as a market that consists of all products which exercise competitive constraints on one another. On the demand side a relevant product market includes all substitutes that the consumer could switch to if the price of the product in question were to increase and on the supply side, the relevant market includes all producers who could, with their existing facilities, switch to the production of substitutes to the goods. Motta (2008) classified the key measures used to define relevant product market into the following four major groups.

I. The SSNIP (or hypothetical monopolistic) test

In determining the relevant market an important analytical tool often used by competition authorities is the SSNIP (small but significant non-transitory increase in price) test. Howells (2005) notes that this test is based on inspection of consumer conduct. In determining the relevant product market the SSNIPtest is used under which the question that is asked is that if the price of the product were to rise by 5-10%, then whatever

products the consumer would switch to because of this rise would constitute the relevant product market. This test is implemented by using own-price and cross-price elasticity of demand. Products that have low own-price elasticity (products commanding inelastic demand) and products with low cross-price elasticity (products which cannot be easily substituted) have their own separate product market. Products with close substitutes and with price elastic demand, on the other hand, have other similar products as competitors and the product market definition would include the competitor products as well.

II. Demand and supply substitutability

Analysis of demand-side substitution focuses on what substitutes exist for buyers and whether enough customers would switch, in the event of a price increase, without incurring a cost,to constrain the behavior of suppliers of the products in question. Substitutes do not have to be identical products to be included in the same market. Indeed most products and services today are differentiated products. Nor do product prices have to be identical. For example, if two products serve the same purpose, but one is of a different specification, perhaps a higher quality, they might still be in the same market, as long as customers prefer it due to a higher price-quality ratio.

Thomas, James, et al (1999) argued that, if a 10% price increase were to lead to as little as 10-20% of customers switching to substitute products the benefit of the price increase would be lost and it would be unprofitable for the company to make the price increase.The behavior of so-called ‘marginal consumers’ who are most likely to switch keeps prices competitive not only for themselves but also for other consumers who are

not able to switch, assuming that suppliers cannot price discriminate among customer groups. Clearly the stronger the evidence that consumers would switch, the less likely it is that a particular product or group of products is in a market on its own.

Supply side substitutability on the other hand examines if producers currently supplying a different product possess the skills and assets to switch to production of other products in a short period of time. According to Motta (2008), six months is considered to represent the short period. Analyzing short run supply-side substitution raises similar issues to the consideration of barriers to entry. Both are concerned with establishing whether firms will be able to begin supplying a product in competition with another existing firm. The distinction is only one of timing, that is, the speed of set-up.

III. Price correlation test

Price correlation tests look at how price series of different products evolve over time (Motta 2008). The idea is that if two products belong to the same market their price will tend to move in the same way over time. As cited on Motta, Stigler and Sherwin (1985) propose a number of possible correlation tests (correlation of prices, logarithms of prices, and first differences of logarithms of prices) and found that the higher the correlation the more likely two goods are in the same market.

IV. Price difference

According to Motta (2008), the underlying principle behind the price difference indicator is large difference in price levels of different products indicatewhich that the products are

not in the same market. The analysis of prices, price trends and relative price levels can be an important part of a competition investigation.

2.1.2.2. Geographic market definition

After identification of the relevant product market, the second element in market definition involves identification of the geographic area within which competition takes place, which may be local, national or international. According to Motta (2008) geographic market is the area to which consumers can practically turn for alternative products if a competitor increases price. Geographical limits of a firm are primarily influenced by consumption, transportation costs or perishable nature of goods.For example, the high transportation cost of cement leads to its geographical market to be close to the manufacturing facility. Therefore,the relevant geographic market is regarded as that part of the relevant market that identifies the physical regions in which the firms might compete.

According to Motta (2008), to assess market power existence in an industry imports, transportation costs and consumer tastes are the three basic measures of geographic market definition.

If a product produced locally is also imported, then it faces competition from the imports and the geographic market for this product would include the source regions of those imports.

Regarding transportation costs, if transporting one product from one region to another involves high costs and thus results in high price forcing demand for the product to decline then the geographic market for the product stays confined to a single region: if not it would expand as long as the product remains unaffected.

As for consumer tastes, if consumers strictly prefer products from specific region then the geographic market of the product would be the region of consumers taste.

2.1.3 . Market power

Motta (2004) defined market power as, the ability of the firms to raise price above some competitive level. This implies that it is the ability of firms to charge price above marginal cost. In the real world, firms are expected to have a certain level of market power. Even if there is an inverse relationship between market power and social welfare, market power is not per se bad. Motta (2004) argued that, eliminating market power cannot be an objective that any competition policy should pursue. He added that competition will erode market power and decrease profit margins.

Market power depends on the nature of market structure. In hypothetical perfectly competitive market both producers and consumers have a negligible market power and price will be determined by demand and supply. On the other hand, in monopolistic market a firm has a large enough market power to exploit social welfare by charging a price greater than marginal cost.

2.1.3.1 . Measurement of market power

There are different approaches that are used to measure market power of industry. But Lerner index and individual firm's market share are the two most frequently employed methods to measure market power.

I. Lerner index (L)

This approach is a famous method of measuring market power. It is defined as a firm's mark up (i.e. the difference between the price p_i and the marginal cost mc_i) over the price ratio. That is

$$L_i = \frac{p_i - mc_i}{p_i}$$

Where, L_i is Lerner index of firm i, p_i is price charged by firm i and mc_i is marginal cost of firm i. In perfectly competitive market price is equal to marginal cost of the firm and Lerner index is zero.

If firms however have different MC of production, the Lerner index evaluates the weighted average of each firm's mark-up of price above marginal cost where the weight is the market share of each firm. If there are n firms and S_i is the market share of firm i, P_i is the price of firm i, and MC_i is the marginal cost of firm i, then, Lerner index is calculated by the formula:

$$L = \sum_{i=1}^{n} S_i \frac{p_i - mc_i}{p_i}$$

In a perfectly competitive market, price is equal to marginal cost in the long run equilibrium and price is greater than marginal cost under monopoly, it is natural to measure the impact of market power on market performance by looking at Lerner index. The greater the deviation between price and marginal cost, the higher the market power of the firm. One problem that might exist is that the Lerner index requires information on marginal cost of production that is not readily observable.

II. Market share

According to Motta (2004), Market share is a common method of measuring market power. To use this technique as measure of market power defining the relevant product and geographic market first is important. Martin (2001) argued that, market share is measured in terms of physical units. If q_1 is the output of firm 1 and the total output of all firms is Q then, firm 1 market share percentage can be calculated by using the following formula.

$$S_1 = \frac{q_1}{Q} 100\%$$

Also Martin (2001) suggested that, Market share is often measured in terms of value. Thus if n firms supply a market, selling amounts $q_1, q_2, q_3, \ldots, q_n$ at prices $p_1, p_2, p_3, \ldots, p_m$ respectively, it will be possible to measure the sale revenue of each firm $p_1q_1, p_2q_2, p_3q_3, \ldots, p_mq_n$ and then market share percentage of firm 1 is calculated as;

$$S_1 = \frac{p_1q_1}{p_1q_1 + p_2q_2 + \ldots + p_mq_n} 100\%$$

Obviously, market share ranges from zero to 100 percent. A degree of market power usually appears when market share reaches about 15%. According to OECD definition of

dominancy, a firm is said to be dominant (has market power to charge price which is above marginal cost) if its market share is above 35 percent. The market share threshold used by different countries to analysis existence of market power in a given relevant market ranges from 35 to 45 percent. For instance South Africa uses 45 percent. But in Ethiopian case, in the trade practice and consumers' protection proclamation 685/2010 it was stated that the Council of Ministers may determine by regulation the numerical value of the threshold.

But it is clear that market share is only one of the variables that one must look at in order to determine market power. The relative position of the competitors and the condition of entry and exit must be taken into consideration to capture the degree of competition and to determine the industry structure of a given market. The monopoly firm who has 100% market share has the highest market power.

2.1.3.2. Measurement of market concentration

Measures of market concentration are intended to reflect the potential for firms within a specific market to exercise market power by raising prices. Market concentration is typically measured by analyzing market shares of firms that supply a specific good or service within a particular geographic area. If firms are identical in terms of market shares, with n firms, each firm has 1/n market share, thus concentration is inversely related to the number of firms. If firms though hold unequal market shares, the number of firms is not likely to capture concentration.

Firms in highly concentrated industries refrain from competing among themselves and might also refrain from decreasing price (Morris, 1984). This would result in higher than average profitability. The traditional expectation is that higher concentration leads to higher and monopolistic performance.

There are several measures of market concentration, but the most common measures are the concentration ratio (CR) and the Herfindahl-Hirschman index (HHI) (Scherer and Ross, 1990; Morris, 1984; Civelek and Al-Alami, 1991).

I. The concentration ratio (CR)

Concentration ratio is the combined market share of the largest m firms in the market (Martin2001). The commonly used CR is the largest four firms CR in the relevant market (Industry) that consists of market share as the percentage. But if there area large number of firms in the industry, it is reasonable to calculate the largest eight or twenty firms CR to examine the situation. Therefore, if s_k is the market share of firm k and firms are numbered so that firm 1 is the largest firm, firm 2 the second largest and so on, then the k firm concentration ratio is the sum of the market shares of the largest k firms and calculated by the following formula.

$$CR_k = \sum_{k=1}^{n} S_k$$

If concentration ratio of k largest firms is above some threshold, which varies among countries, then we can say that the market is concentrated. However CR depends on the definition of relevant market. A wide market tends to reduce the calculated CR while narrow market has the opposite impact.

II. The Herfindahl-Hirschman Index (HHI)

Herfindahl-Hirschman Index (HHI) is an alliterative measure of market concentration. The HHI is simply the sum of squares of individual market shares of all firms in the industry (and so it gives proportionately greater weight to larger firms). That is

$$HHI = \sum_{i=1}^{n} S_i^2$$

Where S is the market share of firm i and n equals the number of firms in the industry. The value of HHI varies between zero (minimum concentration, i.e. prefect competition) and one (maximum concentration, i.e. monopoly). Frequently the value of HHI is multiplied by 10,000, so it varies between zero and 10,000. According to UNCTAD, an "unconcentrated market" has an HHI less than 1000, a 'moderately concentrated market' has an HHI between 1000 and 1800, and a 'concentrated market' has HHI greater than 1800, while a pure monopoly would have an HHI of 10,000.According to Farrell J. and C Shapiro (1990) HHI levels of 1000 and 1800 correspond to a four-firm concentration ratio of 50-70% respectively.

Cabral (2000) argued that, HHI provides a better measure of market concentration and used most widely because it is sensitive to number and size of the industry. But it requires full market share data which may be difficult to acquire.

2.1.4. Dominant firm

If one firm is a price setter and faces smaller, price taking firms, it is called a dominant firm. Typically dominance has been approximated by large market share. According to OECD competition law framework the position of a firm is not dominant unless its relevant market share exceeds 35 percent. A firm having a market share exceeding the 35 percent safe harbor may or may not be found to be dominant depending on the economic situation in that market, including the firm's market share, competing firms' market shares and their abilities to expand those shares, and the potential for new entry into the market.

The smaller price taking firms, called fringe firms, each have a small share of the market, though collectively they may have a substantial share of the market. A dominant firm must consider how the competitive fringe responds to its actions, as for instance, if it reduces output to increase prices, the fringe firms would increase output to take the market share. Some firms may gain substantial market power while others don't. The basic reasons behind this include:

i. Dominant firms may have lower costs than fringe firms. because ,
   - ✓ It may be more efficient than its rivals
   - ✓ It may be an early entrant to the market and may have lower costs from having learned by experience how to produce more efficiently
   - ✓ An early entrant may have had time to grow optimally so as to benefit from economies of scale by spreading fixed costs over more units of outputs. Thus it may have lower average costs of production than a new entrant could instantaneously achieve.

- ✓ The government may favor the original firm by lowering taxes or providing other perks

ii. A dominant firm may have a superior product in the market where each firm produces a differentiated product. This superiority may be due to the reputation achieved through advertising or through goodwill generate by its having been in the market for longer period.

iii. A smaller group of firms may collectively act as a dominant firm, coordinating their activities to increase their profits (a cartel). If all firms in the market coordinate their activities, then the cartel is effectively a monopoly. And if only some of them coordinate, then the group acts as a dominant firm facing a competitive fringe of non-cooperating firms.

2.1.5. Anti-competitive practices

Unfortunately, competition in the market can be concealed or negated through anti-competitive practices by enterprises; these are often referred to as market failures. If competition is to be maintained and its benefits are to be reaped by society, including the consumers, such anti-competitive practices must be strained, and to do so is the primary purpose of competition law and its justification (Qaqqya and Lipimile2008).

According to Motta (2004), anti-competitive practices are generally classified into three major categories. These are cartels and other anti-competitive agreements, abuse of dominant position (monopolization) by an enterprise, and anti-competitive mergers.

In Ethiopian case, according to trade practice and consumers' protection proclamation No. 685/2010 anti-competitive practice or act of restricting competition is defined as acts limiting the competitive capacity of other business persons in commercial activities through acts of putting business persons engaged in selling similar goods and services at loss by reduction of price or through acts of taking over of businesses and technologies of business persons engaged in similar business or through act of restricting the entry of other business persons in to market or through act of restricting the suppliers of goods or services from determining their selling prices or through the tying of the sale of certain goods and services with the sale of other unlike goods or services by limiting the choice of consumers.

These anti-competitive practices cause harm to consumers and society in varying degrees. Gerber(2010) argued that the harm could be even greater in developing countries, because there the markets are generally more fragile as concentration levels are higher, dominant position is more prevalent, entry barriers are higher (regulatory restrictions, capital scarcity, etc.) and competition authorities are relatively less resourced or skilled in disciplining anticompetitive practices.

2.1.6. Costs of anti-competitive practices to consumers

It is generally accepted that anti-competitive practices are costly to consumers, largely in terms of the increase in prices faced by them. According to Cabral (2000) the most widespread of the practices is conduct relating to collusion among competitors (often referred to as 'hard-core' cartels) which results in price fixing, output restrictions, market

sharing and bid rigging. Cartels harm consumers and have pernicious effects on economic efficiency.

A successful cartel raises prices above the competitive level and reduces output. Consumers (which may also include businesses and governments) choose either not to pay the higher price for the cartelized product, thus foregoing the product, or pay the cartel price and thereby unknowingly transfer income to the cartel operators. Further, a cartel shelters its members from full exposure to market forces, reducing pressures on them to control costs and to innovate. All of these effects harm efficiency in a market economy.

Although it is not easy to impute monetary value to the costs, there is a general prevalence of anti-competitive practices, particularly in developing countries. Most of these practices may continue to prevail undetected due to various cons by drawing on some empirical studies however, various estimates can be made regarding the costs of cartels to consumers. Recent research conducted by OECD has indicated that the harm caused by cartels, particularly international cartels amounts to billions of dollars annually.

2.2 . Empirical review

A few empirical studies are carried out in the area of competitiveness of financial sector in general and insurance industry in particular.Milo (2003) analyzed the state of competition in insurance industry in five selected Asian countries (Singapore, Thailand, Malaysia, Indonesia and Philippines).

To serve this purpose, the author classified the insurance industry into life and non-life insurance company. He calculated market share and HHI by using gross premium data in 2001 for both sectors. The result showed that the non-life insurance industry in all of the countries is highly fragmented with maximum HHI value of 462 in Thailand. However, the life insurance sector is significantly more concentrated. In particular, the market share of 5 top life insurance industry ranges from 66 percent in Indonesia to over 90 percent in Singapore and Thailand. The author concludes that market power really existed in life insurance industry and suggested government regulation is the major source of market power**.**

Murat, Roger, et al (2005) assessed competitiveness of 172 privately owned general insurance industries in Australia. The authors used total assets, premium revenue and premium income plus investment income data for the year 1998. To measure the extent of concentration in the industry, they calculated the Herfindahl-Hirschman Index (HHI). Also to investigate the existence of market power in general insurance industry they manipulated the market share of five largest insurers.

They found out that for the five largest companies, on the basis of asset and premium revenue and total income (premium revenue plus investment income) the HHI value 2700, 2400 and 2400 respectively. This show the market of general insurance industry is highly concentrated.

Furthermore Murat, Roger S. et al (2005) used the so-called Panzar Rosse H-statistic ($H=1$, $0<H<1$ and $H<0$ for perfect competition, Monopolistic competition and monopoly

respectively) which helps to test the competitive market structure. Using the H-statistics, the null hypothesis that H is equal to 1 is rejected strongly at the 0.5% significance level. The alternative hypothesis that H is less than 1 is therefore accepted strongly at the said significance level. Thus, they found out that the absence of perfect competition in the general insurance industry support the notion of monopolistic competition in the industry.

Philip and Michel (2007) studied the market structure and performance of UK insurance industry. By using the premium data they calculated the concentration ratios (CR1, CR5 and CR1O) and Herfmdhal indices in 1992, 1998 and 2003 for the four main categories of general insurance (accident and health, motor, property and third-party liability). The result showed that the least concentrated general insurance sector in 2003 was the motor market, where the largest company (Norwich Union) controlled just 11.1% of the market, the top ten companies controlled 71.1% and the Herfindhal index in 2002 was 600. The most concentrated general insurance sector in 2003 was the accident and health market, where the top company (BUPA) controlled over a third of the market, the top ten companies controlled 78.8% and the Herfindhal index was 1,700. The general insurance market in the UK became less concentrated In all four sectors highlighted, the Herfindhal index decreased, with the biggest decrease occurring in the accident and health insurance market over the period from 1992 to 2003. The authors conclude that general insurance industry has a relatively high degree of market concentration, In spite of the fact that there are a relatively large number of companies in the UK insurance industry.

Shilpa(2009) also assessed competition in life insurance sector of India. He usedpremium collected data of 1 public owned insurer and 22 privately owned life insurance sectors.

He calculated the market share of each insurer for the period from 2005 to 2008. The result revealed that market share of more than 70% is with state owned insurer (Life Insurance Corporation). According to this study the top 5 life insurance companies in India control 85% of the market-share while the remaining 18 insurers have only a market share of 15%. The author concluded that the public owned insurer dominate the life insurance industry in India. He suggested that exclusive distribution network and sovereign guarantee as the two basic source of the dominate position.

In the Ethiopian case, very limited researches were done concerning the assessment of the competitiveness of financial sector in general and insurance industry specifically. In this regard, Zeleke (2007), based on a survey of nine insurance companies and four insurance brokers, noted that Ethiopian insurance industry is characterized by high market concentration and weak competition with the market controlled by one or two insurance companies.

Chapter three

Overview of Insurance Industry in Ethiopia

3.1. Insurance in general

In their lifetime individuals, groups, and societies have gone through challenges, problems and risks. People have always sought ways to meet the challenge and solve the problems they face. Mankind is not only limited to solve the already existing problems, he also tries to deal with the uncertainties of life challenges to which he has no idea of when and how this phenomenon affects him.

As stated earlier, mankind was brave enough to find a way to tackle the challenges of unfortunate occurrence. It has been long since people try to find solutions to reduce if not avoid risk, and this is how risk management emanated and was established. Hence insurance is one way of risk management. By purchasing insurance, individuals can transfer their personal risk to a third party (the insurance company).

Insurance is an agreement where, for a stipulated payment called the premium, one party (the insurer) agrees to pay to the other (the policyholder or his designated beneficiary) a defined amount (the claim payment or benefit) upon the occurrence of a specific loss (F. Anderson and Robert L, 2005).

Also insurance is defined as a device that combines the risk of two or more insured's through actual or promised contributions to a fund out of which claimants are repaid. The livelihoods of human beings are contained by diverse controllable and uncontrollable risks ranging from death of individuals to loss of assets by business organizations. The

main purpose of insurance companies is, therefore, transferring these risks from unfortunate individuals or businesses towards policy holders. In addition insurers use the collected premium to invest on bonds, stocks, mortgages and other loans to pay out claims on the insurance policies. Unfortunately, not all risks are insurable. For particular reasons insurers are not willing to accept all the risks that others may wish to transfer to them. To be considered a proper subject for insurance there are certain characteristics that should be present:

- ✓ There must be a sufficiently large number of homogeneous exposure units to make the losses reasonably predictable.
- ✓ The loss produced by the risk must be definite and measurable.
- ✓ The loss must be fortuitous or accidental which means the loss must be the result of uncertainty or contingency.
- ✓ The loss must not be catastrophic that affect the large number of the people. For instance loss from war, drought and famine are not insurable.

Insurance industry has both benefits and costs. Some of the benefits include, insurance firms provide indemnity for those who suffer unexpected loss. Thus unfortunate business and families are restored or at least moved closer to their former economic position. Insurance mechanism can reduce reserve requirements which are the chief economic burden due to necessity of accumulating funds to meet possible losses. Also cash reserves that insurers accumulate are freed for investment purpose, bringing about a better allocation of economic resources and increasing production. Furthermore, insurance contributes to business and social stability and to peace of mind by protecting business firms and families to bread winner.

Whereas, insurers incur expenses such as loss control cost, loss adjustment expenses, expenses involved in acquiring insured's, state premium taxes and general administrative expenses. These expenses plus a reasonable amount of profit and contingencies must be covered by the premium charged. Another source of cost in insurance industry is Moral hazard. This is a condition that increases the chance that some people will intentionally causes loss or can make profit by bringing about losses.

Insurance is classified into two categories, life and non-life insurance. Life (long term) insurance deals with insurance of persons while, non-life (general) insurance focuses on insurance of property and liability.

Long term insurance business consists of insurance business of all or any of the following classes; namely life insurance business, annuity business, pension business, permanent health insurance business, personal accident and/or sickness insurance business. The main purpose of life insurance is to insure against loss of income due to death and can also be used for retirement planning and investing. It is the one kind of insurance you pay for, but only others benefit from it. Except in rare cases, the purpose of life insurance is to provide for others at the time of death of the insured.

Non-life insurance consists of those forms of insurance that are designed to provide protection against loss resulting from, damage to or loss of property and losses resulting from legal liability. By their nature, properties are exposed to a wide range of perils such as fire, theft, perils of the sea, and damage by persons caused accidentally or intentionally. Liability insurance protects the insured against legal responsibilities to

losses of the person or properties of the others. Some insurance contracts such as automobile and aviation insurance permit the insured to purchase both property and liability insurance under one policy. Some insurance companies provide both life and non-life insurance services. Such insurance companies are known as composite insurance.

There are many risks in all classes of the business, which are too much for one insurer to bear solely on its own account. Thus reinsurance is a method created to divide the task of handling the risk among several insurers. Reinsurance may be defined as the shifting by the primary insurer, called the ceding company of a part of a risk it assumes to another company, called the reinsurer. Naturally, the insuring public wishes to effect cover with one insurer and the insurer who in these circumstances accepts a risk greater than he considers in prudent to bear, reinsures all or part of the risk with other direct insurers or with companies which transact reinsurance business only.

3.2. Evolution of insurance in Ethiopia

In Ethiopia, insurance dates back to ancient years when people contributed money or labor to assist other members whenever they faced financial problems or needed assistance. 'Idir' and 'Eqqub' are among the organizations that have played significant role in traditional insurance service in Ethiopia (Ethiopian Economic Association, 2011)

Schaefer (1992) indicates that the emergence of modern insurance in Ethiopia is traced back to the establishment of the Bank of Abyssinia in 1905.The Bank had been acting as an agent for foreign insurance companies to underwrite fire and marine policies. In 1929

the first Australian agent of La Baloise fire insurance company came to Ethiopia and paid the first loss on warehouse and shop (Zeleke, 2007). The first domestic private insurance company (Imperial Insurance Company) was established in 1951 with a share capital of 1,000,000 Ethiopian birr. In the 1960s domestic private companies started to increase in number. According to the survey of the Central Statistical Agency (CSA), in 1962 there were 32 foreign and 2 domestic insurance companies in Ethiopia.

In November 1975 all privately owned insurance companies were nationalized and consolidated into one company, the Ethiopian Insurance Corporation (EIC) up on the declaration of socialism in 1974. During the Derge regime Ethiopian Insurance Corporation enjoyed monopoly power. After the Derge regime ended in the early 1990s, the engagement of domestic private investors in financial sectors in general and insurance industry in particular was once again allowed. The first private insurer, National insurance company of Ethiopia (NICE) after the fall of the Derge was established on September 23, 1994. Then the second privately owned insurer, Awash insurance company was established on October 9, 1994. Now a-days there are 13 insurance companies which actively operate in Ethiopia. Currently, two insurance companies are on process to launch operation. The profile of insurance companies during 2010/11 is summarized by using the following table.

Table 3.1 Insurers profile

No.	Name of insurer	establishment	Paid up capital	No of brunches	ownership	general	long-term
1	EIC	1976	61	41	public	✓	✓
2	NICE	23/09/1994	14.3	16	private	✓	
3	Awash	1/10/1994	44.2	26	private	✓	✓
4	United	09/11/1994	46.9	23	private	✓	✓
5	Africa	22/12/1994	30	13	private	✓	✓
6	Nile	11/04/1995	44.5	20	private	✓	✓
7	Nyala	27/06/1995	35	16	private	✓	✓
8	Global	14/01/1997	20	10	private	✓	
9	Nib	02/05/2002	57	20	private	✓	✓
10	Lion	10/07/2007	18.7	11	private	✓	
11	E-Life	23/10/2008	4.7	0	private		✓
12	Oromia	26/01/2009	28.1	15	private	✓	✓
13	Abay	26/07/2010	7.7	1	private	✓	

Source: National Bank of Ethiopia and insurers 20010/11 annual report.

3.3. Legal and regulatory framework

Government has laid down rules governing the conduct of business, and insurance is no exception. In the case of insurance (as one component of business activities) special attention was given by the government to restructure and organize it in a new form to satisfy social and economic interests of the public. There are several characteristics of

insurance that set it apart from tangible goods industries and that account for the special interest in government regulation. These include,

- ✓ Insurance is a commodity people pay for in advance and whose benefits are reaped in the future (sometimes in the far distant future) often by someone entirely different from the insured and who is not present to protect self-interest when the contract is made.
- ✓ Insurance is effected by a complex agreement that few lay people understand any by which the insurer could achieve a great and unfair advantage if disposed to do so.
- ✓ Insurance costs are unknown at the time premium is agreed upon, and there exists a temptation for unregulated insurers to charge to little or too much which will results in the long run in removing the very security the insured thought was being purchased
- ✓ Insurance is regulated to control the abuse in the industry. As in any line of business, abuse of power and violations of public trust occur in insurance. These include failure by the insurer to live up to contract provisions, drawing up contacts that are misleading and that seem to offer benefits they really do not cover, refusal to pay legitimate claims, improper investments of policyholders funds and false advertising.

OECD (1998) argued that insurance industry is not a single market governed by a single regulatory regime, but a number of separately regulated, related markets. Most regulatory regimes broadly distinguish four classes of insurance: life insurance; health insurance;

property and casualty insurance; and reinsurance. The level of regulation and competition in each class can differ markedly.

According to EEA (2011) In Ethiopia, the first insurance regulation was issued in 1970. This regulation is known as "proclamation number 281/1970" and it ruled out foreign insurers to invest in insurance sector in Ethiopia directly or indirectly. Following the overthrow of the imperial regime by the Military government (Derge), all domestic insurance companies were nationalized in 1975 by proclamation No. 26/1975.

According to Zeleke (2007), the insurance industry in particular and the economy in general are characterized by government monopoly, lack of dynamism and innovation, volatile premium growth rates and reliance on only two classes of business, namely motor and marine. This had an adverse effect on the growth of the insurance industry. Following the regime change in 1991, there was a shift to a market economy and a new insurance proclamation "Licensing and Supervision of Insurance", No. 86/1994, was issued in 1994. This proclamation allowed domestic private sector to invest in the insurance business. The total number of insurance companies, branches and their capital increased significantly.

Chapter four

Methodology

4.1. Product and geographic market identification

To determine market power, it is necessary to begin by defining the relevant market in each of two dimensions: the product market and the geographic market. Therefore, to analyze the nature of competition in Ethiopian insurance industry, identifying the relevant product market and geographic market is essential.

4.1.1. Product market

A product market is defined to include all products that purchasers view as reasonable substitutes for the product in question. The financial sector in Ethiopia consists of banking, insurance and microfinance institutions. In this study demand substitutability, supply substitutability and price correlation are used to identify the relevant product market.

i. Demand substitutability

There is little evidence regarding substitutability of various forms of financial industry and no consensus about whether some products are substitutable for others. In Ethiopian financial industry case, even if banks and microfinance institutions provide almost similar services (paying interest on deposits from interest earned on loans), insurance companies on the other hand deliver different services i.e. collecting funds by selling their policies or shares to the public and provide indemnity for policy holder when it face risk. This

implies that clients of insurance companies do not shift either to banks or microfinance institutions following a given change in the market conditions. Therefore, based on demand substitutability indicator, insurance industry is a separate product market from banks and microfinance institutions.

ii. Supply substitutability

Supply substitutability measures the ease of substitution of product provision from one form to another. For a given change in market variables, a bank may function as microfinance at a relative ease but the vice versa may not be easy due to capital constraints that microfinance institutions will face to grow to banks. But it is obvious that insurance companies cannot divert operation into banks or microfinance and nor can banks or microfinance institutions switch to insurance services within short period (six months according to Motta) due to attracting changes in market situations. This indicates a separate market for each of the three financial sectors.

iii. Price correlation

Over the years, movement of prices for the different financial services in the banking sector has followed a similar path. The amount charged for different services varies but the path of price development shows a parallel trend. Similarly the movement of prices of services for microfinance has followed parallel trend and the same is true for that of insurance services. However the path of prices of services from the three financial sectors is not similar. This also implies that insurance, banking and microfinance industries have separate market.

All the three measures (demand substitutability, supply substitutability and price correlation) confirm that insurance industry is a separate service market from bank and microfinance industries market. Therefore, in this study analysis of market power and other related competition conditions are carried out only for insurance industry.

4.1.2. Geographic market

After determination of the relevant product market, the second element in market definition is a determination of the geographic area where the market participants operate. The geographic market is the area to which consumers can practically turn for alternative products if a competitor increases price. Ethiopian insurance companies have branches in different regions of the country. But none of them operate in foreign countries. Furthermore by insurance proclamation "Licensing and Supervision of Insurance", No. 86/1994, foreign insurers are prohibited from providing insurance services in Ethiopia. Therefore the realities of the delivery of insurance service, as well as the marketing and other business practices of Ethiopian insurers, lead to a conclusion that insurance markets in Ethiopia is domestic (Ethiopian national territory).

4.2. Market power assessment method

In this study, the assessment of market power will be made in the Ethiopian insurance industry by investigating market share concentration of insurers in the industry. This measures the degree to which production is concentrated in the hands of a few insurers in the market. In general, the higher the concentration of output the greater is the market power. But OECD (2007) argued that small number of firms (higher concentration) is not

necessarily bad for competition and one cannot claim the existence of market power in such cases. Rather, it depends on the magnitude of the barriers to entry. According to OECD (2007) existence of market power in an industry harms the consumer when the industry is both concentrated and at the same time have entry barrier. Therefore, this study also investigates entry and exit condition to Ethiopian insurance market.

The two most frequently used methods to measure market power are Lerner index and individual firms market share. In this study market share is used to measure market power in Ethiopian insurance industry. However, this study does not use Lerner index due to unavailability of cost data of each insurer because of the so called confidentiality. To measure market concentration CR and HHI of n larger insurer will be calculated.

4.2.1 Definition of market share

Market share identifies the shares of specific firms within a market. This study measures market share of insurers by capital, asset and insurance premium. The market share of one insurer by using insurance premium earned in a given fiscal year is calculated by divided the gross premium collected by that insurer to the total insurance gross premium of the industry within that year, multiplied by 100. Thus

$$S_i = \frac{P_i}{Tp} x100$$

Where, S_i is market share of insurer i, P_i is gross premium of insurer i and Tp is the total premium of all insurer. The same is true for market share manipulation based on asset and capital.

4.2.2. Definition of k-insurers concentration Ratio

K-insurers Concentration ratio is the percentage of the total market share of the four (4)largest insurers i.e. the proportion of market share accounted for by top four insurers. In this study the concentration ratio of four largest insurers is calculated based on gross premium, total asset and capital data by using the formula,

$$CR_k = \sum_{k=1}^{4} S_k$$

Also the nature of Ethiopian insurance industry market structure will be determined based on the result of four insurers' concentration ratio.

4.2.3. Definition of HHI

The Herfindahl-Hirschman Index (HHI) of competition is a measure of the competitiveness of a market overall. It is not a measure specific to any one insurer, though it is a function of each insurer's market share. The HHI is the sum of the squared market shares of each firm in the market. The more competitive the market, the lower the HHI, while the less competitive the market, the higher the HHI. The largest value the HHI can take is 10,000 when there is a single insurer in the market with 100 percent market share. If a market has four insurers, each with a 25 percent share, the HHI for that market would be:

$$25^2 + 25^2 + 25^2 + 25^2 = 2{,}500$$

If the number of insurers in a market increased, but they all had an equal market share, the HHI would decrease. For instance, if a fifth insurer were added in the above example, so that each insurer had a 20 percent market share, the HHI would fall from 2,500 to 2,000. Alternatively, if the number of insurers falls to three, each with a third of the market, the HHI would increase to 3,333.

Chapter five

Analysis and discussions

5.1. Market power analysis

In Ethiopia, according to proclamation No.685/2010 (trade practice and consumers' protection proclamation) existence of market power (dominant position) in relevant market within the relevant geographic area is assessed by taking into account the business person's share in the market or his capacity to set barriers against the entry of others into the market and other appropriate factors.

In this paper, market power of insurance industry is analyzed by assessing the market share of each insurer. As indicated earlier market share of each insurer in insurance industry is calculated based on the gross premium, total asset and capital of each insurer. Also existence of entry barrier can be assessed if the results of market share analysis revealed the presence of market power in insurance industry.

5.1.1. Market share of Ethiopian insurance industry

Proclamation No. 84/1994 that allows the domestic private financial sector to engage in the banking and insurance businesses markets is the beginning of a new era in Ethiopia's financial sector. Following this proclamation the country witnessed a proliferation of private insurance companies. Currently, there are 13 insurance companies in operation. Despite the proliferation of such privately owned companies, their relative share is still extremely small.

Table 5.1.1ashows a summary picture of the share of insurers in collection of gross premium. It can be read from this table that the dominant position in terms of gross premium is held by the state owned EIC. In 2001 its market share was 45.12% and this value increased to 51.63% in the following year (2002). However, the market share of EIC declined from 51.63% in 2002 to 42.44% in 2009. This indicates that during these periods (2002-2009) the share of the private insurers rose from 48.36% to 57.56% in the two periods. But in 2010 EIC held 44.15% of premium market share. Over the period under study (2001-2010) the average market share of state owned EIC is 46.13%. While, the privately owned insurers together held 53.87% market share in terms of gross premium.

Table 5.1.1a: Market share – gross premium (in %)

Insurer	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EIC	45.12	51.63	50.12	48.32	47.77	44.75	43.58	43.44	42.44	44.15
Nile	11.17	10.17	10.32	11.41	11.75	12.02	10.75	9.52	8.98	9.91
Africa	8.62	7.54	10.15	10.11	9.86	9.16	9.41	9.12	8.58	7.53
Nyala	7.45	6.56	8.08	8.64	8.27	8.57	8.74	8	8.25	7.31
NICE	2.55	2.62	2.92	3.26	3.63	3.57	3.36	3.28	3.04	3.1
Awash	7.06	6.23	6.54	7.5	7.4	8.33	8.54	7.68	7.92	6.94
United	6.27	5.74	7.05	5.87	4.79	6.78	7.78	7.84	8.12	7
Global	1.76	0.98	0.86	0.98	1.16	1.31	1.25	1.2	1.06	1.01
Nib	10	8.53	3.96	3.91	5.37	5.51	6.59	8.08	7.26	6.89
Oromiya								1.84	1.98	2.97
Lion									2.11	2.92
E-life									0.26	0.27
total	100	100	100	100	100	100	100	100	100	100

Source: Calculated from data of NBE

NB: Shaded years means that those insurers have not yet started business

Almost similar pattern is observed when total asset is considered as a variable to measure market share of insurers. As shown in table 5.1.1b, the market share of the state owned EIC (the dominant insurer) is 55.52% in 2001 and increase to 56.63% in the following year then declined 54.9% in 2003. But the market share of EIC has declined from 55.12% in 2004 to 44.27% in 2010 resulting in the share of the private insurance sector successful rise from 44.88% to 55.73 %. But the average market share of EIC is now increased (51.61%) as compared to the average market share (46.13%) when gross premium is considered as measurement of market share.

Table 5.1.1b: Market share – total asset (in %)

Insurer	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	sum	average
EIC	55.52	56.63	54.9	55.12	54.67	51.36	49.25	47.71	46.62	44.27	516.05	51.605
Nile	9.74	9.66	8.88	9.54	10.4	10.07	10.01	8.44	7.77	7.41	91.92	9.192
Africa	7.64	7.43	7.75	7.67	7.42	8.8	9.22	10.42	9.69	10.26	86.3	8.63
Nib	6.89	6.6	7.61	7.46	7.15	8	7.89	7.98	7.7	8.22	75.5	7.55
NICE	1.51	1.5	1.55	1.69	1.69	1.7	1.97	1.85	1.89	1.8	17.15	1.715
Awash	6.31	6.33	5.42	5.98	5.98	6.66	7.15	7.36	7.44	7.78	66.41	6.641
United	5.58	5.4	5.36	4.44	4.1	4.61	5.52	6.97	7.33	7.41	56.72	5.672
Nyala	5.38	5.25	7.47	7.04	7.09	7.21	7.17	6.44	6.18	7.04	66.27	6.627
Global	1.43	1.2	1.06	1.06	1.5	1.59	1.82	1.85	2	1.86	15.37	1.537
Oromiya								0.98	1.62	1.94	4.54	0.454
Lion									1.58	1.82	3.4	0.34
E-life									0.18	0.19	0.37	0.037
Total	100	100	100	100	100	100	100	100	100	100	1000	100

Source: Calculated from data of NBE

NB: Shaded years means that those insurers have not yet started business

As shown from table 5.1.1c, whentotal capital is considered as another variable the trend of market share between private and state owned insurers is not uniform like that of gross premium and total asset. The average market share of EIC over the period under study (2001-2010) is43% and all private insurers' together accounts 57%. In sum, the private insurers catch relatively higher market share in terms of total capital.

Table 5.1.1c: Market share – total capital (in %)

Insurer	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EIC	39.89	38.33	41.98	44.54	49.28	50.01	46.00	47.85	34.37	37.53
Nile	14.13	13.99	14.78	14.15	13.15	11.09	13.06	10.09	12.31	11.95
Nyala	11.63	12.17	12.67	13.20	11.70	10.52	10.49	9.74	11.80	11.68
Africa	10.25	11.66	11.88	10.74	9.45	9.59	9.11	9.05	9.58	9.31
NICE	1.94	1.81	2.11	2.36	1.58	1.87	2.39	2.61	2.87	2.70
United	8.03	8.06	8.71	7.07	5.63	7.71	8.28	8.35	9.23	9.17
Global	2.77	2.59	2.58	2.62	2.70	3.20	3.50	3.43	3.93	3.20
Nib	11.36	11.39	5.28	5.32	6.53	6.02	7.17	6.96	9.58	8.20
Oromiya								1.91	4.45	2.92
Lion									1.37	1.81
E-life									0.51	0.42
Abay									0.00	1.11
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Calculated from data of NBE

NB: Shaded years means that those insurers have not yet started business

The average market share of EIC for the period under study (2001-2010) is 46.13%, 51.61% and 43% when gross premium, total asset and total capital respectively are used as measurement of market share of Ethiopian insurance industry. These can be compared

with OECD model competition law which stated as business actor is said to be dominant if one firm or a group of firms controls 35% or more of the market share.

All the three variables used to measure the market share of Ethiopian insurance industry indicate that the existence of market power in Ethiopian insurance industry and the state owned Ethiopian insurance corporation (EIC) is the dominant player. The market share of private insurers is all most similar in terms of the variables used. From this we can understand that even if EIC dominate the insurance market there is strong competition among private insurers.

5.1.2. Is there entry barrier in Ethiopian insurance industry?

For assessment of market power and competition a firm with high market share that is a dominant firm cannot create a problem of competition by its self. The problem happens when the dominant firm has high market share and entry barrier to the relevant market is exist. With this regard OECD (2007) argued that the totality of the detrimental effects on competition will depend on the level of entry barrier and if it is high, then one might argue that it will cause significant harm to competition. If entry of new firms into the market is relatively easy, then the incumbent firms are less likely to be able to exercise market power. Thus before concluding whether market power exists in Ethiopian insurance industry or not, it is better to assess the entry condition to the industry.

In this paper, sources of entry barrier such as, regulation, natural factors, sunk cost and conduct of incumbent firms are examined to determine the existence of market power in Ethiopian insurance industry.

Regulation: Currently the regulatory framework by which insurance companies in Ethiopia are ruled by is insurance proclamation "Licensing and Supervision of Insurance", No. 86/1994, which was issued in 1994. By this proclamation foreign insurers are prohibited to invest in the insurance business. This can be taken as a potential entry barrier in Ethiopian insurance industry. Also this proclamation limited the minimum capital requirement to establish a general, long term and composite insurance business to be birr 3 million, birr 4 million, and birr 7 million respectively.

Natural factors: Natural factors such as economies of scale that results from high fixed costs can be one source of entry barrier. But in Ethiopian insurance industry this is not observed. For instance Oromiya insurance S.C entered into the market in 2008 and in its first year operation took about 1.84% of the gross premium market share. This is also true for Lion and E-life insurance companies that came to the market in 2009 and accounted for 2.11% and 0.26% market share in premium market.

Sunk cost: It is a cost that a firm will not recover if it chooses to leave the market. Most of the time sunk cost occurs due to low resale price of purchased capital goods, high cost of research and development and high advertising costs. In this regard since 1994 when a domestic private sector was allowed to invest in insurance industry no insurer exited from the market. Therefore there is no case that helps to investigate existence of sunk during the exit from insurance market.

Incumbent firms conduct: This is another source of entry barrier. It is the action taken by incumbent firms to hinder entry of new competitors into a given product or service industry. This consists of high switching costs that a customer bears if he/she wants to

shift to the new suppliers. In Ethiopian insurance industry case a customer can switch from on insurer to another without bearing significant additional cost as far as he/she found similar goods or services. Also in Ethiopia almost all insurers provide similar services. This implies that one insurer has no competitive advantage over the other new entrants. Therefore product differentiation can't result in entry barrier in Ethiopian insurance industry.

Thus based on the results of quantitative analysis by using market share and the qualitative investigations made regarding existence of entry barrier in insurance industry of Ethiopia, it can be said that the industry is characterized by existence of market power and dominated by a single state owned EIC. The basic reason behind this conclusion is the existence of large gap in market share between the dominant insurer (EIC) and other private insurers. The prohibition of foreign insurers to enter into Ethiopian insurance market also supports this argument. Also there are no insurance companies which are merged together or acquired by another potential insurer due to market failure resulted from the industry competitive behavior.

5.2. Level of market concentration in Ethiopian insurance industry

5.2.1. Concentration Ratio

In this paper concentration ratio is the percentage of the total market share of the four (4) largest insurers i.e. the proportion of market share accounted for by top 4 insurers. Concentration ratio of four largest insurers is calculated based on gross premium, total asset and total capital.

Table 5.1.2a show the market concentration by gross premium for the four largest insurers (EIC, Nile, Africa and Nyala) from 2001 to 2010. The concentration ratio of the four top insurers (CR4) increased from 72.12% in 2001 to 78.61% in 2004. And then it fell slightly from 77.59% in 2005 to 67.7 % in 2010. The four insurers have held 73.54% (on average) of total gross premium in the industry between 2001 and 2010. This shows that the concentration ratio of the remaining nine insurers is only 26.46% (on average). The market concentration of the four major insurers points to oligopolistic competition and indicates that there is no enough competition in the insurance industry as the market is still dominated by the four insurers.

Table 5.2.1a: Market Concentration – gross premium (in %)

Insurer	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EIC	44.88	51.82	49.88	48.25	47.71	44.86	43.58	43.28	42.04	44.15
Nile	11.17	10.17	10.32	11.41	11.75	12.02	10.75	9.52	8.98	7.91
Africa	8.62	7.54	10.15	10.31	9.86	9.16	9.41	9.12	8.58	7.33
Nyala	7.45	6.56	8.08	8.64	8.27	8.57	8.74	8	8.25	7.31
CR4	72.12	76.09	78.43	78.61	77.59	74.61	72.48	69.92	67.85	67.7

Source: Calculated from NBE data

Moreover, insurance concentration, defined as the total asset share of the four largest insurers (EIC, Nile, Africa and Nib). Table 5.2.1b below, presents the concentration ratio of the top four insurers based on total asset for 2001- 2010 .These top four insurers constituted 76.93% on average in the period under the study. This means that the four largest insurers mobilized 76.93% of the total industry assets. In 2010 the asset share of the EIC was 44.27%, while the share of all three privately-owned insurers was nearly 25.89%.

Table 5.2.1b.Concentration ratio- Total asset (in %)

Insurer	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EIC	55.52	56.63	54.9	55.12	54.67	51.36	49.25	47.71	46.62	44.27
Nile	9.74	9.38	8.88	9.5	10.4	10.07	10.01	8.44	7.77	7.41
Africa	7.64	7.43	7.75	7.67	7.22	8.8	9.22	10.42	9.69	10.26
Nib	6.89	6.6	7.61	7.46	7.15	8	7.89	7.98	7.7	8.22
CR4	79.79	80.04	79.14	79.75	79.44	78.23	76.37	74.55	71.78	70.16

Source: Calculated from NBE data

When total capital is considered as other variable to measure concentration of Ethiopian insurance industry ,the insurance market is being dominated by the big 4 namely EIC, Nile, Nyala and Africa, who together control on average77.47% of the industry total capital. The market share of the top 4 insurers was 75.9% as at 2001 and this has slightly increased to 83.58% as at 2005. But the market share of four biggest insurers is declined from 81.21% in 2006 to 70.47% in 2010. This is due to the competition from the existing and new entrants. This means that the market is still controlled by the top 4 Banks indicating weak competition.

Table 5.2.1c.Concentration ratio- Total capital (in %)

Insurer	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EIC	39.89	38.33	41.98	44.54	49.28	50.01	46.00	47.85	34.37	37.53
Nile	14.13	13.99	14.78	14.15	13.15	11.09	13.06	10.09	12.31	11.95
Nyala	11.63	12.17	12.67	13.20	11.70	10.52	10.49	9.74	11.80	11.68
Africa	10.25	11.66	11.88	10.74	9.45	9.59	9.11	9.05	9.58	9.31
CR4	75.90	76.15	81.31	82.63	83.58	81.21	78.66	76.73	68.06	70.47

Source: Calculated from NBE data

Theoretically, industries in which the concentration ratio of four top firms is under 50% are considered effectively competitive. Industries in which the concentration ratio is at least 50% but less than 70% considered as weak oligopolies (the other seventeen banks still command 43.8% and a situation where the ratio is more than 70% as the case of Ethiopian insurance industry (in which CR4 is 73.54, 76.93 and 77.47 percent on average in terms of gross premium, total asset and total capital respectively) is considered as strong oligopolies. Strong means that the four insurers in the industry have a greater ability to influence the price. The second issue after the incidence of competition is to ascertain the intensity of competition. Competition often intensifies with the entry of new entrants or suppliers into a market that is not expanding proportionately. The market concentration shows how competitive an industry is. If a market is very competitive we expect the concentration ratio to be low as participants strive to acquire a sizeable share of the market thus leading to efficiency.

5.2.2. Herfindahl - Hirschman Indexes (HHI)

Competition arises where two or more providers of services or goods offer their products, as substitutes, to buyers in the same market (Korsah et al, 2001). According to them, competition can be researched from various angles. First it is important to establish the incidence of competition i.e. is there competition in the Ethiopian insurance industry? A market with several suppliers makes collusion (anti-competitive conduct) difficult to enforce (Korsah et al, 2001).To them (quoting Oster, 1995), where firms are similar in size, competition increases because none of them can dictate the market. Therefore Herfindahl-Hirschman Index (HHI) is a concentration measure that can be used as a tool

for assessing the incidence of competition. The Herfindahl-Hirschman Index (HHI) is the sum of the squared market shares of all insurers in the in the insurance industry.

In the case of a monopoly, when one firm has 100 percent of the market share, the HHI will be equal to 10,000, which is the upper bound. The lower bound of zero is attained when the market is perfectly competitive. Therefore, the larger the HHI, the more concentrated the market becomes, since fewer firms control more of the market. A market with HHI in excess of 1800 is generally considered as highly concentrated and adverse effects can be presumed.

Table 5.2.2 shows year on year HHI indexes from 2001 to 2010. The HHI is above 1800 for the whole periods (2001- 2010) when gross premium and total asset is considered as variable to measure market concentration insurance industry in Ethiopia. In terms of total capital, except for the year 2009 the HHI value is also above 1800. But the 10 years average HHI is 2426 which is far above the threshold (1800). Therefore the HHI value calculated for the period under study also revealed that Ethiopian insurance industry is highly concentrated.

Table 5.2.2 HHI based on gross premium, total asset and paid up capital

HHI - Gross premium of insurance industry (in %)										
Insurer	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EIC	2014.21	2685.31	2488.01	2328.06	2276.24	2012.42	1899.22	1873.16	1767.36	1949.22
Nile	124.77	103.43	106.5	130.19	138.06	144.48	115.56	90.63	80.64	98.21
Africa	74.3	56.85	103.02	102.21	97.22	83.91	88.55	83.17	73.62	56.7
Nyala	55.5	43.03	65.29	74.65	68.39	73.44	76.39	64	68.06	53.44
NICE	6.5	6.86	8.53	10.63	13.18	12.74	11.29	10.76	9.24	10.11
Awash	49.84	38.81	42.77	56.25	54.76	69.39	72.93	58.98	62.73	48.16
United	39.31	32.95	49.7	34.46	22.94	45.97	60.53	61.47	65.93	49
Global	3.1	0.96	0.74	0.96	1.35	1.72	1.56	1.44	1.12	1.02
Nib	100	72.76	15.68	15.29	28.84	32.6	45.16	65.29	52.71	47.47
Oromiya								3.39	3.92	8.82
Lion									4.45	8.53
E-life									0.07	0.07
HHI	2467.55	3040.97	2880.25	2752.7	2700.98	2476.67	2371.19	2312.28	2189.85	2330.76
HHI - Total asset of insurance industry (in %)										
Insurer	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EIC	3082.47	3206.96	3014.01	3038.21	2988.81	2637.85	2425.56	2276.24	2173.42	1959.83
Nile	94.87	87.98	78.85	90.25	108.16	101.4	100.2	71.23	60.37	54.91
Africa	58.37	55.2	60.06	58.83	52.13	77.44	85.01	108.58	93.9	105.27
Nib	47.47	43.56	57.91	55.65	51.12	64	62.25	63.68	59.29	67.57
NICE	2.28	2.25	2.4	2.86	2.86	2.89	3.88	3.42	3.57	3.24
Awash	39.69	40.7	33.41	35.76	35.76	36.48	51.12	49.14	55.35	60.53
United	34.57	29.16	28.73	19.71	15.76	21.25	30.47	48.58	53.73	54.91
Nyala	28.94	27.56	55.8	49.56	50.27	51.98	49	40.2	38.19	49.56
Global	2.04	1.44	1.12	1.12	2.25	2.53	3.31	3.42	4	3.46
Oromiya								0.94	1.23	3.03
Lion									1.39	2.92
E-life									0.02	0.03
HHI	3390.71	3494.82	3332.3	3351.96	3307.12	2995.83	2810.81	2665.44	2544.48	2365.25
HHI - Total capital of insurance industry (in %)										
Insurer	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EIC	1591.05	1469.34	1761.98	1983.81	2428.03	2500.8	2116	2289.62	1181.37	1408.5
Nile	199.57	195.61	218.57	200.17	170.3	123.03	170.67	101.85	151.59	142.9
Nyala	135.35	148.18	160.58	171.61	136.89	110.84	110	94.95	139.22	136.33
Africa	105.04	135.84	141.13	115.39	89.3	91.93	81.29	81.87	91.7	86.73
NICE	3.76	3.29	4.46	5.56	2.48	3.53	5.72	6.81	7.49	7.73
United	64.53	64.46	75.9	50.04	31.64	59.41	68.56	69.76	85.27	84.16
Global	7.67	6.71	6.97	6.86	7.29	10.21	12.22	12.11	15.47	10.22
Nib	128.98	129.87	27.88	27.46	42.58	36.19	51.49	48.44	91.7	67.26
Oromiya								3.66	19.77	8.52
Lion									1.87	3.27
E-life									0.26	0.17
HHI	2235.96	2153.3	2397.47	2560.9	2908.51	2935.96	2615.95	2709.07	1785.69	1957.02

Source: Calculated from NBE data

NB: Shaded years means that those insurers have not yet started business

5.3. Dominance in insurance market: EIC

We found a dominant position being enjoyed by state owned EIC in Ethiopian insurance market. This has to be substantiated to prove its dominance in the relevant market. In Ethiopia, EIC is the only state owned insurer working in insurance industry. But there are several private players in this market.

To say that private players have some catching up to do with EIC would be an understatement. Prior to the opening up of domestic private participation in 1994, the insurance sector was monopolized by EIC. Moreover, as the private players have been around for only few years, it would not be possible for them to make a substantial dent in EIC market-share either.

EIC has huge investment and financial strength. Owing to its bigger size it has the best advantage of pricing as well as getting better investment returns which can subsidize its original insurance product. Therefore, EIC is said to have a dominant position in insurance market and the factors leading to dominance are as follows:-

- ✓ The existence of prohibition of foreign insurers from entering into Ethiopian insurance industry
- ✓ Before 1994, EIC is a monopoly insurer
- ✓ Nevertheless, it cannot be denied that EIC is a government owned insurer and is therefore trusted by a lot of companies and individuals to purchase insurance policy from it than the private insurer.
- ✓ EIC has more branches, sells agents, and brokers than private banks

Chapter six

Conclusion and recommendation

6.1. Conclusion

Competition in the economy can create a positive prospect for economic growth and development of a country. In order to have competitive market developing effective competition law that helps to take action on firms that commit anti-competitive practice is necessary. But, many developing countries are not in position to develop efficient competition law due to complex nature of market, limited capacity and lack of experience.

Recently (2010) Ethiopian government developed trade practice and consumers protection law to safeguard consumers and business community from anti-competitive and unfair market practices. In order to enforce this law, trade practice and consumers protection authority was established.

This paper intended to investigate the existence of market power in Ethiopian insurance industry where market power is defined as the ability of one or a few insurers dominate the market and hence charge price above its marginal cost. The main conclusion of this paper is that there is market power in Ethiopian insurance industry and the state owned Ethiopian insurance corporation (EIC) seems the dominant insurer in terms of gross premium, total assets and paid up capital.The basic source of dominance pointed towards protecting foreign insurer entry by NBE regulation.

Based up on market concentration ratio of the top four insurers, Ethiopian insurance industry points towards strongoligopolistic competition and that the reforms in the

financial sector have not been able to generate enough competition in the insurance industry of Ethiopia. This means that the new entrants have not been able to penetrate into the top. Also there is zero sum game among the top four insurers in the sense that while the biggest state owned insurer (EIC) had lost its market share, the other three private insurers had gained.

In spite of the fact that there are a relatively large number of companies in the Ethiopian insurance industry, the results of this study revealed that the industry has a relatively high degree of market concentration. It is obvious that strong competition among rivals in any industry will result in market failure. But market failure has not occurred in Ethiopian insurance industry yet. This supports the result of this paper which revealed that there is market power in Ethiopian insurance market and hence the market is highly concentrated.

6.2. Policy Recommendation

Based on the above conclusions the following policy recommendations are forwarded:

- Trade practice and consumers protection authority needs to advocate the government to permit entry of foreign insurers.
- There is the need for consolidation and mergers particularly among the small private insurers to build their capacity and become more competitive.
- Public awareness should be built to have trust and confidence to buy insurance policy from private insurers
- Trade practice and consumers protection authority needs to advocate competition in insurance market.
- The authority needs to advocate the government to privatize the state owned dominant insurer

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