The Importance of Actuarial Practice in Ethiopia

a

RESEARCH PROPOSAL

Submitted to

INDIRA GANDHI NATIONAL OPEN UNIVERSITY (IGNOU)
FACULTY OF ECONOMICS, SCHOOL OF SOCIAL SCIENCES
MAIDAN GARHI, NEW DELHI

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE - MASTER OF ARTS IN ECONOMICS

SUBMITTED BY : **TAMERAYHU HAILEMARIAM AFEWORK**

ENROLMENT NO: **ID1404080**

NAME OF SUPERVISOR : **DUGASSA MULUGETA (PhD)**

JANUARY, 2017
ADDIS ABABA, ETHIOPIA

TABLE OF CONTENTS

CONTENTS **PAGE No.**

1. INTRODUCTION

Utilitarianism as a philosophy, and risk aversion as a feature of human psychology, lead to the evolution of financial security systems as a means of reducing the financial consequences of unfavorable events. Actuaries are those with a deep understanding of financial security systems, their reasons for being, their complexity, their mathematics, and the way they work (Trowbridge, 1989). Actuarial practice is concerned with the assessment of the economic consequences associated with phenomena that are subject to uncertainty. This practice requires understanding of the principles underlying several fields, including statistics, economics and risk management, as well as the principles of modeling, valuation and risk classification (Allaben et al, 2008).

Actuaries fulfill many roles in a broad range of environments, including insurance companies, health organizations, pension plans, risk management, government, regulatory regimes, and in other fields. They have a detailed understanding of economic, financial, demographic and insurance risks and expertise in: developing and using statistical and financial models to inform financial decisions; and pricing, establishing the amount of liabilities, and setting capital requirements for uncertain future events. Actuaries also provide advice on the adequacy of risk assessment, reinsurance arrangements, investment policies, capital levels and stress testing of the future financial condition of a financial institution. The term “financial institution” is used broadly to include pension plans and governmental systems, such as social insurance plans, as well as retail and investment banks (IAA 2013).

Actuarial guidance notes and standards of practice are important tools in ensuring that actuarial services are performed in a consistent and appropriate manner, to a high standard of quality. Actuaries that belong to a recognized actuarial society that is a full member of the IAA are bound by professional codes of conduct and actuarial standards of practice. In jurisdictions where these do not exist, or where actuarial services are performed by others, there is a need to provide professional guidance and standards to ensure consistency and quality (IAA 2013).

The International Actuarial Association (IAA) is an international actuarial regulatory body which is responsible to provide guidelines for its member associations in each country on issues such as educational system and requirements for membership, code of professional conduct, disciplinary

process, and system for developing standards of actuarial practice. The IAA cannot control the use of the term "Actuary" but it can set professionalism guidelines for those who are members of IAA and is happy to assist both the local regulator and the local actuarial association wherever desired (IAA 2013).

The role of a professional actuarial association varies from country to country. In Kenya, for example, The Actuarial Society of Kenya (TASK) is a full member of the International Actuarial Association which brings together qualified and trainee actuaries in professional, educational and research organizations with an aim of promoting the actuarial profession in Kenya and East Africa (Raichura, 2007). According to IAA (2016), there exists no full or associate member association of the IAA which is committed to promote the actuarial profession in Ethiopia. The country also suffers from lack of qualified actuaries and domestic actuarial service providers. The need to introduce actuarial practice as an important factor which determines the development of the Ethiopian insurance and financial sectors initiated a descriptive research on the topic under study.

2. STATEMENT OF THE PROBLEM

Actuarial practice in Ethiopia is regulated and supervised by the National Bank of Ethiopia. In April 1996, the Bank issued Directive No. SIB/11/1996 to license and supervise insurance actuaries. The Directive provided the legal, academic and financial requirements for license acquisition and supervision of actuarial practices in Ethiopia. The Directive also made supervisory provisions for foreign actuaries or actuarial firms licensed outside Ethiopia to engage in actuarial valuation business in the country (NBE 1996).

Despite the supervisory provisions of the Bank, the actuarial practice in Ethiopia is at its infant stage; because there are no qualified actuaries (Fellows/Associates) and domestic actuarial firms which provide actuarial service to the Ethiopian market (Weilant, 2011). Moreover, the Ethiopian insurance industry is relatively underdeveloped in comparison to that of other African countries. Insurance premiums represent about 0.47 percent of GDP for non-life insurance, and 0.03 percent of GDP for life insurance (World Bank, 2015). This low level of development is attributed, among others, to: lack of awareness among the public about insurance, low level of attention given by

most insurers for life assurance, unfair competition in the market, underdeveloped domestic financial markets, lack of experience in insurance technique and absence of domestic actuarial service provider (Mohammed, 2011).

Furthermore, unlike other countries, Ethiopia doesn't have any professional, educational or research organization which promotes actuarial practice in the country. The country doesn't even have any actuarial association which is a standing member of the International Actuarial Association (IAA). Therefore, in order to promote the actuarial practice in the country, evaluating the importance of the practice and its effect in uplifting the country's underdeveloped insurance and financial market is important.

3. OBJECTIVES OF THE STUDY

3.1. GENERAL OBJECTIVE

The main objective of the study is to analyze and determine the importance of actuarial practice in Ethiopia and to give recommendations based on the empirical findings of the study.

3.2. THE SPECIFIC OBJECTIVES

Based on the above general objective, the study has the following specific objectives:

a) identify how actuarial practice influence the Ethiopian insurance and financial sectors.
b) describe the role of actuaries and actuarial firms in promoting the practice in Ethiopia.
c) examine the role of the actuarial regulatory regime in promoting the practice in Ethiopia.

4. RESEARCH QUESTIONS

The study attempts to answer the following research questions:

a) How important is actuarial practice in the Ethiopian insurance and financial sectors?
b) How important is the role of actuaries and actuarial firms in promoting the practice in Ethiopia?
c) How important is the role of the actuarial regulatory regime in promoting the practice in Ethiopia?

5. RESEARCH METHODOLOGY

Quantitative research is a means for testing objective theories by examining the relationship among variables. On the other hand, qualitative research approach is a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem with an intent of developing a theory or pattern inductively. Mixed approach is an approach in which the researchers emphasize the research problem and use all approaches available to understand the problem (Creswell, 2003). To achieve the research objectives and obtain answers for research questions, mixed approach will be applied which involve both quantitative and qualitative methods so as to offset the weaknesses inherent within one method with the strengths of the other method. The data collection and analysis methods which will be used in the research project are presented under the following subheadings:

5.1. DATA SOURCES

Both primary and secondary data sources will be used in the study. The research mainly relies on secondary sources of data from local and international actuarial publications including books, bulletins, magazines, brochures, reports and various data sources from the internet. The actuarial regulatory bodies, associations, academic institutions, consulting firms, insurance companies and financial institutions will be the main sources of secondary data. Primary survey will be used to collect primary data which provide quantitative or numeric description of trends, attitudes, or opinions of the actuarial regulatory and practicing organizations with an appropriate sampling of the population. Qualitative data will also be collected by using in-depth interviews with concerned individuals. The main source of primary data will be various actuarial practitioners in Ethiopia including the National Bank of Ethiopia, insurance and reinsurance companies, consultants and brokers, pension and health care, investment and other financial institutions.

5.2. METHODS AND TOOLS OF DATA COLLECTION

Desk review will be used for secondary data collection from various publications on actuarial practice. Primary survey will also be used in a form of structured questionnaire designed to gather information on major actuarial practice areas. Key informants interview will also be used to collect first hand qualitative data from actuarial practitioners and higher officials in the Ethiopian insurance and financial market players and regulatory.

5.3. SAMPLE SIZE

The target populations of the study are all actuarial practitioners including qualified actuaries, regulatory bodies, insurance and reinsurance companies, actuarial consultants, brokers, pension, health care agencies, investment, financial institutions, governmental and non governmental organizations. Purposive non-probability sampling technique will be used in the study and the sampling will be based on the availability of data. Accordingly, the following sample will be taken from the actuarial practicing population.

	Type of sample	Size	Representation
1	Actuaries and Actuarial Consulting Firms	2	*Qualified Fellow or Associate and actuarial consulting firm licensed and operating in Ethiopia*
2	Regulators	2	*The National Bank of Ethiopia (NBE) Insurance supervision directorates (ISD)*
3	Life Insurance Companies	2	*Life insurance companies licensed and operating in Ethiopia*
4	General Insurance Companies	2	*General insurance companies licensed and operating in Ethiopia*
5	Reinsurance Companies	2	*Reinsurance companies licensed and operating in Ethiopia*
6	Insurance Brokers	2	*Broker firms licensed and operating in Ethiopia*
7	Micro Insurance Companies	2	*Micro insurance providers licensed and operating in Ethiopia*
8	Micro Finance Institutions	2	*Micro finance providers licensed and operating in Ethiopia*
9	Banks	2	*Commercial and investment banks operating in Ethiopia*
10	Insurance Associations	2	*Association of Ethiopian Insurers & Society of Insurance Professionals*
11	Academic Institutions	2	*Ethiopian Institute of Financial Studies (EIFS) and Addis Ababa University (AAU)*
12	Health Insurance	2	*Ethiopian Social Health Insurance Agency (CBHI & SHI)*
13	Pension	2	*The Ethiopian Social Security Agency & pensions*
14	Research Organizations	2	*Social and agricultural insurance research organizations*
15	Non Governmental Organizations	2	*NGOs providing aid to social and agricultural insurance*
Total Sample Size		**30**	**Actuarial service providers and users**

5.4. DATA ANALYSIS TECHNIQUE

The data will be checked for accuracy and completeness in recording of the responses. After checking, the data will be summarized and analyzed using computer software SPSS and Microsoft excel programs. The data will be analyzed using descriptive statistics and inferential statistics where frequencies and percentages will be used in the analysis and interpretation of the data. Tables and charts will be used in the presentation of the data.

6. SIGNIFICANCE AND EXPECTED OUTCOMES OF THE STUDY

The outcomes of the study is expected to provide empirical evidence on the importance of actuarial practice in Ethiopia. The study shall play a significant role in the formation of a well structured actuarial practice in Ethiopia which in turn uplift the country's underdeveloped insurance and financial market.

7. ORGANIZATION OF THE PAPER

The paper will be organized in five chapters. Chapter one deals with introduction, chapter two will be reviewing of the related literature, chapter three will be about the research methodology, and chapter four deals with data analysis and presentation of findings. Finally, chapter five will bring summary of major findings, conclusions, recommendations and suggestions on the importance of actuarial practice in Ethiopia.

REFERENCES

Allaben Mark, Diamantoukos Christopher, Dicke Arnold, Gutterman Sam, Klugman Stuart, Lord Richard, Luckner Warren, Miccolis Robert, Tan Joseph. (July 2008). *Principles Underlying Actuarial Science.* Issue of the Actuarial Practice Forum. The Society of Actuaries. Retrieved December 30, 2016, from https://www.soa.org/library/journals/actuarial.../2008/august/apf-2008-08-allaben.pdf.

Creswell, J W 2003, *Research design: qualitative, quantitative, and mixed methods approaches, 2nd ed.*, Sage publisher, California

International Actuarial Association (IAA). (2013). *The Role of the Actuary*. Role of the Actuary Task Force of the Executive Committee (EC). Retrieved December 30, 2016, from www.actuaries.org/LIBRARY/Papers/Role_Actuary_EN.pdf.

International Actuarial Association (IAA). (2016). *Africa Sub-Committee Three Year Draft Work Plan: State of the Actuarial Profession in Africa and Draft Work Plan of Africa Sub-Committee*. Presented at Cape Town, South Africa Retrieved January 04, 2017, from www.actuaries.org

Mohammed Dawit. (2011). *Enhancing Life Assurance and Its Economic and Social Benefits*. BIRRITU *Magazine 111: 5–13. Addis Ababa. National Bank of Ethiopia.*

National Bank of Ethiopia (NBE). (1996). *Licensing and Supervision of Insurance Business*: *LICENSING OF INSURANCE ACTUARY*. Directive No. SIB/11/1996. Addis Ababa: NBE.

Raichura K Sundeep. (2007). *The Actuarial Profession in Kenya*. Presented at 3rd International Meeting of Leaders of the Actuarial Profession in Africa. Retrieved January 09, 2017, from www.actuaries.org/FUND/Nairobi/Kenya.pdf.

The World Bank Group. (2015). *4th Ethiopia Economic Update: Overcoming constraints in the manufacturing sector*.97916. Retrieved December 31, 2016, from *documents.worldbank.org/.../97916-REVISED-Box393200B-PUBLIC-Ethiopia-Econ.*

Trowbridge, Charles L. (1989). *Fundamental Concepts of Actuarial Science. Revised Edition. Actuarial Education and Research Fund.* Retrieved December 30, 2016.

Weilant E. Michael. (2011). *Pricing microinsurance products in Ethiopia. Milliman. Retrieved January 04, 2017 from* http://www.milliman.com/insight/Research/expertise/microinsurance/case-studies/Pricing-microinsurance-products-in-Ethiopia/