

DECLARATION

I, Madhu Sarada, do hereby declare that the thesis entitled Measurement of Efficiency among Life Insurance Companies in India during the Post Reform Period has been prepared by me under the guidance of Dr. Indrajit Ray, Professor of Commerce, University of North Bengal. No part of the thesis has formed the basis of any degree or diploma or fellowship previously.

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CERTIFICATE

I certify that Mrs. Madhu Sarada has prepared the thesis entitled Measurement of Efficiency among Life Insurance Companies in India during the Post Reform Period, for the award of Ph. D degree of the University of North Bengal, under my guidance. She has carried out the research at the Department of Commerce, University of North Bengal.

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MEASUREMENT OF EFFICIENCY AMONG LIFE INSURANCE COMPANIES IN INDIA DURING THE POST REFORM PERIOD
Thesis submitted to the University of North Bengal For the award of Doctor in Philosophy in Commerce By Madhu Sarda
Guide Dr. Indrajit Ray Department of Commerce University of North Bengal August, 2022

1 Chapter I INTRODUCTION On 19 January 1956, while broadcasting to the nation, the Finance Minister, C. D. Deshmukh announced, 'This afternoon the Government have promulgated an ordinance regarding life insurance. All life insurance companies, Indian as well as foreign, doing business in India came under Government management and control. This is the first and preparatory step towards the nationalisation of life insurance.' 1 On 1 September 1956, 154 Indian insurers, 16 non-Indian insurers and 75 provident societies – all together 245 insurers and provident societies were integrated and it led to the formation of the Life Insurance Corporation of India (LIC). With this, public sector exclusivity started in the Indian life insurance industry. Jawaharlal Nehru described it as 'an important step in our march towards a socialist society.' 2 At the time of Rajya Sabha proceedings on 7 December 1999, then Finance Minister, Y. Sinha emphasised the inclination of the Government towards the liberalisation of the insurance sector. In his speech, he mentioned that '[w]e are in favour of competition between the private sector and the public sector and that is exactly what we proposed to do in this respect.' 3 Later in the same month, the Indian Parliament passed the Insurance Regulatory and Development Authority (IRDA) Bill. It received presidential assent in January 2000. The IRDA Act marked the ending of public sector exclusivity and the beginning of market-driven competition in the Indian insurance sector. In this respect, the Finance Minister, Y. Sinha further stated, 'This Bill is not about the Privatisation of the LIC and the GIC. They have discharged their responsibilities very well.' 4 During LIC's monopoly status for more than four decades, the key insurance parameters such as total premium, sum assured, total asset, life fund 1 Sadhak, Life Insurance in India, p. 84 2 Quoted in Ibid., p.84 3 Supplement to the Synopsis of Debates of 7 December 1999 4 Ibid.

ABSTRACT

An economy is built upon financial intermediation. The efficacy of financial intermediation ripples through distant economic boundaries and benefits all the stakeholders. Insurance has emerged as one of the significant constituents of the Indian financial intermediation; thus, the question of its efficiency should not be lost sight of. Time and again, the Indian insurance industry was found at crossroads. Each time, whenever structural changes took place, the insurance industry got transmuted. The latest structural change took place in 2000 when the Insurance Regulatory and Development Authority (IRDA) Act, 1999 was enacted. It marked the ending of state exclusivity and the beginning of market-driven competition in the Indian insurance sector. Then policymakers believed that the liberalisation-led competition would persuade both the public insurer and private insurers to perform efficiently and to grab higher shares of the uninsured market. They prophesied that the reform would bring a positive impact on key insurance parameters.

The potential insurance market of India appeals for unabated scale expansion. However, scale expansion policy should be subject to scale efficiency analysis. The present study primarily focuses on the measurement of scale efficiency scores of the life insurance companies operating in India during the post-reform period. This study measures and analyses scope efficiency also. The scale efficiency relates to the volume of production and the scope efficiency relates to the variety in production.

The efficiency aspect of the Indian insurance industry has not been researched as substantially as compared to foreign insurance industries. The Econometric Frontier Approach (EFA) and the Data Envelopment Approach (DEA) are popular techniques in the realm of efficiency studies. The present study chooses the EFA over the DEA. In the Indian context, the econometric path of the efficiency measurement is almost not travelled. The study undertakes

the Ordinary Least Square (OLS) method of estimation to measure the scale efficiency of the life insurance companies operating in India during the period from 2003-04 to 2018-19. It measures the scope efficiency of the entire industry, as well as the public sector and the private sector individually. It adopts the translog cost function. Separate output sets are adopted to measure the scale efficiency and the scope efficiency. Benefits paid (Q_R) is one of the output variables to measure scale efficiency. The other output variable is investment (policyholders') and income from investment along with assets held to cover linked liabilities (Q_I). Three output variables, namely, life fund (Q_1), pension and group fund (Q_2) and ULIP fund (Q_3) are adopted for the measurement of scope efficiency. Three input variables are chosen, namely, labour (L), capital (K) and technical provision (TP). Cost (C) is the single dependent variable. Operating expenses related to the insurance business along with payment to suppliers of labour, capital and technical provision is used to surrogate the cost. Labour (L) is priced with commission per agent (W). Insofar as the price of shareholders' fund (R) and that of technical provision (P) are concerned, income from investments per rupee of shareholders' fund and prime lending rate are adopted respectively.

It is found that the reform has caused a structural break in the life insurance premium series. It has driven the average premium upward. However, the slope, i.e., growth rate per year, has reduced by 5.9 per cent. Around 73 per cent of life insurance companies enjoy scale economies throughout the study period. No life insurance company is scale-neutral, i.e., scale efficiency equals unity. Two life insurance companies, namely, TATA-AIA Life Insurance Company Limited (TALIC) and Shriram Life Insurance Company Limited (SHLICL), experience scale diseconomies. Around 18 per cent of life insurance companies experience both scale economies and scale diseconomies during the study period. Insofar as the entire life insurance industry is concerned, scale economies prevail. The public life insurance sector enjoys scale economies, whereas the private life insurance sector experiences scale

diseconomies, except in two financial years. Hence, the entire life insurance industry should expand its scale of production, and such expansion should be contributed by the public sector. The yearly scale efficiency scores of the entire life insurance industry stay in between the public and the private life insurance sector except in the financial year 2009-10. It is due to the combined impact of scale economies and scale diseconomies as prevailed in the public sector and the private sector respectively. It is also found that with the increase in asset size and with the expansion of scale (output), the value of scale economies, though remaining less than unity, increases. Insofar as the scope efficiency is concerned, this empirical study indicates that a higher cost is involved in specialised production than in joint production. In other words, joint production is better as dropping any two of three outputs would lead to higher costs. Hence, the entire life insurance industry, as also individually the public life insurance sector and the private life insurance sector, are scope efficient, as they are currently pursuing joint production.

PREFACE

Insurers perform multiple roles. As risk mitigators to policyholders, capital protectors to shareholders, capital infusers to the Government, infrastructure enablers to administrators, credit facilitators to borrowers — insurers leave multiple foot prints on the economy. More than two centuries ago, the first life insurance company was established on Indian soil. Since then, this industry has experienced many phases.

In 1999, the Indian life insurance sector espoused neo-liberal optimism and embraced structural reform. This incident paved the entry of many private insurers. However, while talking about life insurance, the Life Insurance Corporation of India (LICI) appears to our mind first. Are private insurers not performing efficiently? Is it prudent to expand production unabatedly? Most financial institutions offer multiple products. Should the Indian life insurance industry follow the trend or act differently? The present dissertation is a humble attempt to answer the above issues. For the Indian insurance industry which is growing and catering to the multi-dimensional needs of customers, scale and scope efficiency analysis is indispensable, not indulgence.

This study would have remained incomplete without the impetus and relentless support of cross-section individuals. First of all, I offer my sincere gratitude to my supervisor, Dr. Indrajit Ray, Professor, Department of Commerce, University of North Bengal. His continuous guidance and follow-up are the keys that set the formulation and the direction of this thesis. His proficiency in diverse subjects made it possible to incorporate historical aspects, economical aspects and statistical aspects at the same time. I shall ever be indebted for his valuable insights that enriched the content of this dissertation.

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I alone remain responsible for any shortcomings.

Madhu Sarma

Date:

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