CHAPTER VIII

SUMMARY AND CONCLUSIONS

It was the general phenomenon of most of the private insurance companies in the India during pre-nationalisation period of life insurance sector that they were least interested to spread the benefit of life insurance in remote areas specially among the economically backward class of the society. Also frequent liquidation was the common feature of insurance companies at that time. Mainly, with the object of removing the aforementioned problems in the life insurance sector, LIC was formed in 1956.

The assessment of LIC's performance over time, which is taken into consideration in the study, helps to know how far the basic objective behind the formation of LIC (viz, the spread of life insurance at a reasonable cost all over the country) has been satisfied. Another importance of performance appraisal of LIC in the study is to find out whether there is any association between general socio-economic development in the country and the progress of LIC's business. In other words, it has been enquired whether LIC's business has progressed evenly over different zones and time periods. Along with others, we have also examined here whether life insurance policies and products are mainly considered as the tax saving devices in India. Moreover, in the present era of globalisation, liberalisation and privatisation of economic system and also the introduction of structural reforms in the Indian insurance sector, now it is of no less important task to empirically examine the performance of LIC because that facilitates not only to know the necessity of structural reforms in life insurance sector but also to get an idea on LIC's capability of facing the future challenges and tough competition with the giant international as well as national private insurance companies.

performance indicators of LICI. Whole period's growth rates of the performance indicators have been measured by fitting log-quadratic trend equation. Two sub-periods' growth rates and four decades' growth rates have been estimated separately by fitting kinked exponential trend equation. Performance of LICI has also been assessed through ratio analysis by comparing computed mean values of different ratios over different sub-periods statistically. To measure the effect of economic policy of liberalisation, privatisation and globalisation in general and probable threat in insurance reforms in particular, regression analysis has been done with dummy dependent variable, \( D_2 \) \((D_2 = 1 \text{ when } t \geq 1993-94; \text{ otherwise } D_2 = 0)\) and principal components of definitional homogeneous groups of ratios as independent variables. Likewise, the effect of recommendations of the Era Sezhiyan Committee on the performance of LICI has been assessed by introducing dummy dependent variable, \( D_1 \) \((D_1 = 1 \text{ when } t \geq 1980-81; \text{ otherwise } D_1 = 0)\). Multiple regression equations have also been estimated to examine how far LICI's business performance is dependent on different socio-economic factors and on different time periods (represented by dummy variables). Here also factor analysis on socio-economic variables have been applied specially to avoid the econometric problem of multicollinearity and also to reduce the total number of independent variables (hence to increase the degrees of freedom and consequently efficiency in estimating the coefficients of regression equation).

From the literature survey in Chapter III, it has been observed that there exists a vast literature in the field of life insurance both in India and abroad. The contemporary notable contributors in this filed are Ganga (1996), Gupta and Chattopadhyay (1996), Outreville (1996), Bajpai (1996), Berketi (1999), Chakraborty (1999), Dubey (1999), Rees and Kessner (1999), Pant (1999, 2000), Ranade and Ahuja (1999a, 1999b, 2000), Rao (1999, 2000), Parera (2001), Vidyanathan (2001), etc. But most of the earlier studies in this area, specially at the national level, suffer from various methodological and other weaknesses in measuring the performance of life insurance business in the country. Some of the studies have assessed the performance of LICI considering and comparing the relevant figures corresponding to different time points without considering the trend movements of the
performance indicators. Few studies have examined the relationship between life insurance business and overall socio-economic development of the country. However, there remains a scope for a comprehensive study on the determinants of the life insurance business in India. A number of studies have paid attention on the necessities and nature of insurance regulations for the developed and developing countries. But how far the present functioning of LIC may be affected due to the opening up of the insurance sector under liberalised setting and how far LIC’s performance has been changed due to probable threat of facing future competition have not been considered in any of these studies. Performance has also been assessed through ratio analysis. But different ratios may move in different directions and magnitudes. To draw inference consistently from ratio analysis, no study has applied the appropriate statistical method, like factor analysis. The statistical measure of periodic changes in the performance of LIC through the application of dummy variable technique has also not been considered by these studies. This study is a modest attempt to correct these limitations of the earlier studies in assessing the performance of LIC and that has been made by considering comparatively longer period (1962-63 to 1999-2000) and its different sub-periods with suitable statistical and econometric techniques. This study, however, like other studies in the same area cannot avoid some inherent limitation and restrictions that are generally imposed by the secondary level data base.

This last chapter is confined to summarise the major findings of the study and to draw conclusion from those findings. An attempt has also been made to derive the policy prescriptions from the study for further improvement in the performance of LIC.

A. Findings on Trend Analysis

BUSINESS

From the whole period’s (i.e., 1962-63 to 1999-2000) estimated mean levels of different categories of LIC’s total business, it has been observed that individual business dominates the Indian life insurance sector. It is noticed from the estimated whole period’s growth rates of various components of LIC’s total business that except in its individual business outside India, in all other cases average annual real
growth rates are more than 5% and in few cases, these are as high as above 10%. The components which have experienced relatively high growth rates are (i) group and superannuation business, (ii) pension and annuity business and (iii) individual business inside India. The commonly observed phenomenon of ‘high growth associated with high instability’ remains here unnoticed.

From the estimated zone-wise disaggregated growth rates of new and in-force individual business of LIC during the whole period, it is found that the progress of Southern zone is faster than other zones and also real mean levels of life insurance business are highest in this zone, followed by Western and Eastern zone. Here it is observed that high growth rates are associated with high levels of instability. The estimated real mean values of rural-urban distribution of new individual business establish that LIC is largely an urban phenomenon as yet. Considering the growth aspect, however, it is seen that growth rates (both in number of policies and sum assured) in rural areas are higher than those in urban areas. But high growth rates in rural areas are associated with high levels of instability. The whole period’s growth rates of product-wise distributions of LIC’s new individual business reveal that the highest growth rate takes place in whole life policies followed by the money back policies and with-profit policies. Among the different insurance products, dominance is prevailing in with-profit policies and levels of instability are moderate in all cases except in the categories of other policies and without-profit life insurance policies.

As regards the estimated sub-periods’ growth rates, it is noted that almost in all the components of LIC’s business, growth rates are significantly higher during second sub-period compared to those values in the first sub-period. This observation is also supported by the statistically significant positive values of trend break of the respective components. The only discomforting feature is that these high growth rates during the second sub-period are in general associated with the high levels of instability. Like growth rates, mean levels of all components of LIC’s business have significantly increased during the second sub-period. All these observations signify a major break through in the expansion of LIC’s business since early 1980s.
Over the decades, mean levels of almost all the components of LICI's business have increased. But from the estimated decade-wise growth rates of individual life business, it is observed that in general, growth rates decreased from 1st decade (i.e., 1960s) to 2nd decade (i.e., 1970s) and then started to increase. The levels of instability, on the other, increased from 1970s to 1980s and then from 1980s to 1990s those decreased. In regard to the growth rates related to both group and superannuation business and pension and annuity business it is noticed that those were highest during the decade of 1980s and then declined prominently along with the decrease of their levels of instability from 1980s to 1990s.

**INVESTMENT**

From sector-wise distribution of LICI's total investment, we have seen that government sector occupies a major part (about 75%) of the fund invested by LICI and share of foreign investment is very negligible (less than 1%) during the entire study period. Further, during the whole period investment in government sector grew at a faster rate (6.61%) than the growth rate of total investment in all sectors taken together (6.19%). Considering the stability aspect for the whole period, however, it is seen that investment in government sector is the most unstable, while that in foreign sector is the least unstable. In regard to the zone-wise investment in stock exchanges, it is observed that high growth rates are associated with high levels of instability. It is also seen from the estimated mean levels of LICI's investment in stock exchanges that dominance of Western zone prevails throughout the study period.

All round significant improvements in growth rates and mean levels of all components of sector-wise investment and investment in stock exchanges by LICI have been observed during the second sub-period compared to those of the first sub-period. The relative importance of different categories of investment, however, remains unchanged with the holding of government sector investment in the leading position. But the relative position of the zones in regard to stock exchange investment of LICI have remarkably changed over time. Further, during the second sub-period, levels of instability of all sectors (except the category of other
investment) and all zones are at higher level compared to those during the first sub-
period.

The trend of dominance of government sector investment to total investment
existed evenly also when we divide the whole period into four sub-periods (i.e.,
decades) for minute analysis. It is also noticed that the growth rates of investment
and its sectoral compositions have shown a significant increasing trend from one
decade to another (with the sole exception of the category of other investment).
Estimated real mean levels of stock exchange investment is highest in Western zone
from the first decade onward to fourth decade. The mean levels of stock exchange
investment in other zones have also enhanced very sharply in the fourth decade
compared to those in earlier decades. Further, the estimated real growth rates of
total stock exchanges investment and of that in different zones have actually
fluctuated in many cases from the first to second decade and from second to third
decade. But a definite pattern that is observed in this regard is that in the last
decade the growth rates have significantly increased to the boom level in all cases.
Again positive relationship is found here between growth and instability.

INCOME AND OUTGO

From the estimated average levels of different components and also of total
values of income and outgo of LICI, it is observed that their real average levels have
increased from first sub-period to second sub-period and also across the four
decades. The relative importance of individual and group premium income and
investment income in gross total income throughout the whole period remains
unscathed even if the entire period is divided into two sub-periods and four sub-
periods (i.e. decades) for classified analysis. On the outgo side, we find that the
share of total management expenses in total outgo has reduced over time to some
extent. But so far as the relative positions of the components of total outgo are
concerned, those remain unchanged over the two sub-periods as well as over four
decades.

During the whole study period, significant growth in all elements of income
as well as outgo of LICI is observed. Among the various components of income,
highest growth rate is noticed in investment income before tax. In regard to the whole period's growth rates of different components of outgo, it has been observed that except 'other outgo', all other components have grown more or less equally and significantly. Along with the expansion of LIC's business, the growth rates of outgo components have also increased smoothly over two sub-periods as well as over four decades. But a shift in those increasing growth rates is noticed from first two decades to last two decades. Further, the growth rates of investment income before tax during first two decades of the study period were higher than those of the individual and group business premium income and total income. But in the last two decades, growth rates of these three types of income (viz, individual and group business premium income, investment income before tax and total income) moved together. The rate of growth in surplus has steadily and significantly increased across the decades implying thereby that LIC's income grows much faster than its outgo. The closing life fund which has shown a moderate rate of increase in the first three decades has also steeply increased in the 4th decade. It is noteworthy that with the significant increase in the growth rates of almost all the components of income and outgo of LIC, their levels of instability have also increased in all cases.

OFFICES

From the zone-wise estimated growth rates of divisional offices and branch offices, it is seen that during the whole study period there exists no significant difference among the growth rates of the four zones of the country and growth rates of branch offices in all zones and LIC as a whole are higher than those of divisional offices. Between two sub-periods, growth rates of branch offices remain more or less unchanged but the growth rates of divisional offices have improved from the first sub-period to the second sub-period. The pattern of higher growth rates of branch offices than divisional offices during the whole period and over two sub-periods has changed when those are considered decade-wise. More specifically, a much higher growth of divisional offices than branch offices is noticed in the last decade.
PERSONNEL

It is depicted from the growth rates of different categories of life insurance personnel over the whole study period that all the growth rates have accelerated. But when the pattern of growth rates of life insurance personnel is analysed for two sub-periods separately, it is found from the estimated results that over the first sub-period the growth rates of insurance personnel were significantly negative, whereas significantly positive growth rates of almost all those were observed during the second sub-period. From the decade-wise analysis of growth rates of the different classes of life insurance personnel, it is observed that growth rates of those components are mostly volatile over the decades. However, it is noticed that their growth rates were relatively high and significant in the third decade and in the last decade all the growth rates have declined compared to those during the third decade.

B. Findings on Ratio Analysis

On the basis of ratio analysis the study establishes that with the passage of time more and more people have been brought under the net of Life Insurance Corporation of India (from barely 3.7% in 1970s to over 10% in 1990s). Further, the recommendations of the Era Sezhiyan Committee as well as the potential threat of liberalisation, privatisation and globalisation of insurance sector lead to significant improvements in the performance of LIC measured in terms of mean difference tests of each of the externally measured (LICC, LID, PIR, PIRH and LIPC) and internally measured (ARI, TILFPI, STBR, LFTBISA, PRTSA, PCS, ACHIP and AITIB) ratios for both the sub-periods and also for each pair of adjoining decades under the study period. This observation of significant improvements in LIC's performance both from 1980-81 and from 1993-94 has also been supported by estimating regression equations of corresponding dummy dependent variable fitted on the principal components of (efficiency, productivity, income and expense) ratios. More specifically, from the estimated regression results, it is observed that from 1980-81 income and expense ratios and from 1993-94 efficiency ratios of LIC moved significantly and favourably.
It should be noted in this connection that inspite of the satisfactory improvements in the ratios related to LIC's business, premium income, life fund, etc. and also the externally measured ratios over time, the magnitudes of the latter group of ratios related to some macro-economic variables (e.g., life insurance penetration, life insurance carrying capacity, life insurance density, etc.) are remarkably low in India compared to global as well as some other developing countries' standards. So there remains a large scope for further expanding life insurance business in the country. Efficiencies and productivities of life insurance personnel on whom the LIC's management has sufficient control have improved over time measured either in terms of business per employee or insurance business per rupee of employee expenditure. But insurance business per active agent has reduced probably due to the overcrowding of the system of life insurance agency in the regime of acute unemployment situation in the country. The estimated results on expense ratios indicate that across the time since nationalisation LIC has been able to reduce its renewal expenses and overall expenses ratios. It is also observed that due to the reduction of expenses on salaries and other benefits paid to the staff, an important component of outflow of LIC, both the renewal and overall expenses ratios have significantly declined over time. But the new business expenses ratio has not only increased recently (from 1980s to 1990s) but also remained at a high level. To be more competitive, this ratio should be reduced and that would be possible if commissions are paid only directly to the agents instead of paying chain-based commissions from development officers at the top to agents at the bottom.

**C. Findings on Socio-Economic Determinants**

From the state-wise time series regression analysis of socio-economic determinants of life insurance business (measured in different forms and ratios), it is observed that net state domestic product has positive and significant impact on the life insurance business in almost all the major states in India, whereas on it a significantly negative effect of the size of population is noticed in most of these states. It is also established from the state-wise cross-section regression analysis of socio-economic determinants of life insurance business that Net State Domestic
Product plays a significant positive role in promoting life insurance business. But no definite inference could be made regarding the other socio-economic indicators which have been taken into account in the cross-section regression analysis.

The estimated statistical results of time series analysis of socio-economic determinants of life insurance business for the country as a whole establish that the Indians in general recognize life insurance policies as the alternative saving instruments. Further, the life insurance penetration significantly and positively depends on the favourable demographic factors (like, number of male, urban, able-bodied and literate persons) and number of marketing personnel of life insurance business. It is also observed from this time series analysis that life insurance carrying capacity significantly and negatively depends on the average premium rate of life insurance policies. This implies that to develop life insurance business as a proportion of GDP, premium rates are to be rationalized.

From the regression results related to the enquiry of the existence of ‘March phenomenon’ it is found that there is a sound effect of tax incidence on the variation of new life insurance business inspite of the changes in the macro-economic policies after 1990-91. So life insurance policies are as yet mainly considered as tax saving devices by the tax payers. Regression analysis for the LICI as a whole also establishes that the expansion of its business positively and significantly depends on relative rate of return (which in turn positively depends on average bonus rate) of insurance policies. Further, significant positive relation is found between average bonus rate and average rate of return from investment, which can be increased by increasing the size of investment in private sector to total investment of LICI. So for further progress of LICI’s performance, appropriate portfolio management of its fund available for investment is required. No exclusively separate significant impact of periodic changes (represented by dummy variables) is observed on the LICI’s business performance when those are analysed along with the analysis of socio-economic determinants.