CHAPTER 1

Introduction

Like Prometheus, they defied the gods and probed the darkness in search of the light that converted the future from an enemy into an opportunity.

– Peter L. Bernstein, Against the Gods: The Remarkable Story of the Risk

Risk Management is generally regarded as a method of managing property and liability loss exposures, and it is rarely associated with life and health insurance of individuals as a method of managing personal loss exposures. This is not called for, inasmuch as risk management provides a framework that can be used to analyze almost all types of loss exposures, including life and health. The far-reaching significance of risk management approach to individual life insurance in the complex, post-industrial, and post-modernist society can hardly be exaggerated. To cite a classic instance, the most devastating terrorist attack ever against the World Trade Center in New York on September 11, 2001.\textsuperscript{1} resulted in a catastrophic loss of life and property values. The Terrible Tuesday factor would have thrown thousands of families into financial disaster but for the modern, sophisticated methods of risk management through insurance.

Since time immemorial men have sought ways of controlling the risks to which individuals and business ventures are exposed. However, only in the later part of the twentieth century has risk management emerged as a distinct subject and as an arm of practical management in its own right. It brings together ideas and techniques drawn from different disciplines in order to provide a sound conceptual foundation and a set of tools
for the analysis and control of risks. In its broadest sense, risk management embraces all efforts, on the part of individuals and risk managers, to minimize the impact of uncertain events. The risks to which an individual or a business firm is exposed extend to the uncertainties associated with every type of activity and, what is more, differ in the nature of their potential outcomes. Hence the need for, and relevance of, the application of risk management concepts and principles to all types of risks, including personal risks that can be identified, quantified, and controlled.

Traditionally, risk management has been synonymous with annual budgeting for insurance premiums, and hedging. This has been especially true in Indian environment, and the corporate risk manager has the sole responsibility of negotiating insurance contracts. In a recent international research programme, conducted with a view to understanding the future market for risk management, most respondents, while offering commendable definitions of risk management, had little to say, by way of explanations, as to how in practice they would operationalize their grand risk management ambitions.\(^{2}\) Whatever an individual's attitude towards risk may be, if he/she is to maximize his/her welfare, the first step must be to identify and evaluate the risks to which he/she is, or may become, exposed.

Risk management, as a set of techniques for surviving loss, comes in more or less five forms. First, we can restrict our decisions to those over whose outcomes we have some control, thereby managing the probability of loss. Second, we can diversify in order to reduce the consequences of loss. Third, we can insure as a collective method of diversification. Four, we can change our minds and evade a commitment before all is
lost. The only other method available to us is to refuse to play when the risks are unacceptable.

In his monumental work, *Against the Gods: The Remarkable Story of Risk*, a powerful indicator of the fundamental changes affecting societies around the world, Peter L. Bernstein observes that development and progress of society at large implies accepting the risks and uncertainties of life as a fundamental fact, or point of reference. He remarks how "until now, civilizations have avoided or dismissed risk and uncertainty, initially with the help of the gods, then with the help of deterministic science". What is more, he visualizes that "in the future, a better, more civilized world might arise, capable of better confronting, and subsequently better managing, the challenges and changes resulting from risk management".

Accordingly, risk managers, economists, as well as individuals have responded to these challenges and changes in formulating their programmes for dealing with current risks, and for handling future events under changing conditions. Consequently, risk management is broader today in its treatment of risk, embracing, as it does, both the analysis and the handling of risks, using all forms of risk control. What is more, it approaches the problem of risk, not from the standpoint of the insurance industry, but from that of the organization or individual exposed to risk. It is also increasingly being recognized that risk management is far more than the management of insurance programmes. New ideas are being brought to bear on problems, and new theories are being developed. This leads us to the chief concern of the present chapter.
The chapter is divided into five parts. Part I seeks to make out a case for the need for the present study. Part II spells out the overall aim of the study. Part III deals with the objectives, hypotheses, and methodology of the study. Part IV presents the plan of the study, offering a synopsis of each of the seven chapters of the thesis. Part V concerns itself with the limitations, and the significance of the study.

I

Need for the Study

Surprisingly enough, no systematic research work has been reportedly done in India on life insurance as a method of risk management, much less as a technique of managing personal risks associated with death, disability, sickness, unemployment, and old age, let alone as a producer of wealth. Moreover, the interrelationship between life insurance and human capital has not been properly recognized and acknowledged. It has not been realized for long that human resources have not only quantitative dimensions of physical property, but also qualitative characteristics of ethical behaviour, good health, man-making education, and creative ability. The simple truth that people can invest in themselves, and that these life-long investments could be substantial and meaningful has been rarely stressed, perhaps, not being aware of the fact that the monetary worth of the income forces are incorporated within one's being.

No doubt, it is difficult to think in terms of lifetime earnings, which appear to be abstractions. But, when "the catastrophe of death or total disablement occurs this abstraction becomes a stark reality", and only then do we normally realize that "the
surviving family has suddenly lost a lifetime of earnings". Therefore, the head of the family who is planning his/her estate should try to fund that lifetime support for the family, so that in the event of his/her untimely death or disability, the assets provided and prudently handled will replace the lost earnings. In other words, by going through this process of converting a future stream of earnings into a lump sum of present value, he/she is, in effect, capitalizing it, thereby expressing the economic value of a person's future earnings.

The increased productivity arising from investment in human capital demands a conceptual framework for estimating human life value which provides an economic rationale for life and health insurance planning, thereby giving rise to optimal life insurance protection. Hence the need for an in-depth study of a relatively simple, but reasonably accurate method of estimating economic value of an individual to his or her family and, consequently, the extent to which he or she should capitalize earnings for life and health insurance purposes to determine optimality. This obviously involves the present value of future net earnings with allowance for trends in income, certain deductions, inflation, and discounting for interests.

II

Aim of the Study

The present thesis aims at making a case study of Indian life policyholders with a view to estimating their human life value (HLV) in order to know whether they have optimal life insurance protection. The human life value is viewed as the capitalized value
of the net future earnings of an individual after deducting appropriate costs for self-maintenance. The economic and statistical principles that are applied for the appraisal of the property values are also applied for appraising the potential earning capacity of human beings.

The monetary value of a human life is measured by determining the net present value of benefits that others, one's spouse or dependents, might reasonably expect to receive from the future efforts of the individual whose life is being valued. This amount is used to calculate the benefit amount needed to replace the lost future earnings of a wage earner to set the amount of life insurance. While calculating the economic potential of an individual in all its dimensions, his/her economic personality is analyzed precisely. The economic value of the earner is derived by his/her life expectations, the size of his/her family and his/her life style. The value of his/her insurance has to be equal to the responsibilities, which he/she would have shouldered had he/she not been snatched away from the scene. This risk management process applied to life insurance planning helps determine not only the amount of life insurance needed for an individual, but also the most suitable type of life insurance and the insurer from which to purchase.

It is upheld that capitalization of economic value of human life is possible only through human life value approach to life and health insurance. By guaranteeing this capitalized value in the event of death, life insurance perpetuates the earning capacity of an individual for the benefit of his/her dependents by acting as a hedge against such a loss. Therefore, individuals who have dependent members of family are expected to take out such an amount of insurance that the proceeds would yield an income equivalent to at
least one-third to one-half of their earning capacity during the remaining part of their work life.

III

(A) Objectives of the Study

The objectives of the present study are

1. To arrive at a systematized approach to the insurance purchase decision as well as sales decision.
2. To provide an economic rationale for the purchase of life insurance through a normative economic approach.
3. To estimate the value of funds that the family will get for the purpose of maintaining its financial well-being at their current level in the event of the breadwinner's premature death or disability.
4. To find out the capitalized value of an individual's future net earnings, thereby measuring the economic human life value (HLV) of an individual.

(B) Hypotheses of the Study

The present study seeks to test two hypotheses:

1. The human life value (HLV) concept provides only an economic rationale, not an economic explanation, for the purchase of life insurance.
2. The life insurance purchase decisions in India are not based on the HLV concept, as a result of which the typical life policyholder is inadequately insured.
(C) Methodology of the Study

The following research methodology has been employed for the case study undertaken. Sufficient emphasis has been laid on a full contextual analysis of select Indian life policyholders. Although hypotheses are used, the reliance is more on the quantitative data than on qualitative data. The emphasis laid on detail has provided valuable insight for problem solving, evaluation, and strategy.

(i) Sampling

The sample consists of 70 Indian life policyholders. Stratified simple random sampling is administered. The stratified sampling is expected to be based on dividing a population into several mutually exclusive sub-populations or strata, and then randomly sampling from each of these strata. But, owing to constraints of time and resource, this could not be done. So, sampling is used to study the characteristics of a cross-section of income groups. Different income groups are chosen from different sub-groups or strata.

(ii) Sources of Data

The data for the case studies of Indian life policyholders has been gathered mainly from primary and secondary sources.

(a) Primary Data

The primary data is gathered through the 'communication approach' by means of a 'schedule' along with a data sheet, and interview technique. The communication approach surveys respondents and records their responses for analysis. The schedule along with the data sheet has been designed keeping in view the objectives and hypotheses framed for the research study.
(b) Secondary Data

The secondary data is gathered from various published and unpublished records of the offices of insurance administration. It is also collected from textbooks on the subject under study, critical literature in the form of books, journals, weeklies, newspaper cuttings, and from the Internet.

IV

Plan of the Study

The thesis is divided into seven chapters. The introductory chapter seeks to make out a case for the need for the present study, and spells out the aim of the study, the objectives of the study, the hypotheses of the study, the sources of data collected, and the methodology for the study employed. Furthermore, it contains chapterization with the abstract of each chapter given for the benefit of the reader. It also indicates the limitations as well as the significance of the present study.

The second chapter, Risk and Risk Management, gives a detailed account of the nature of risk and scope of risk management, driving home the point that the correct measurement of risk lies at the foundation of any system of insurance. Risk is defined as uncertainty concerning the occurrence of a loss. If subjective risk is uncertainty based on an individual's state of mind, objective risk is the relative variation of actual loss from expected loss. The basic categories of risk include (a) pure and speculative risks, (b) static and dynamic risks, and (c) fundamental and particular risks.
Risk Management is defined as a systematic process for identifying and evaluating pure loss exposures faced by an organization or an individual, and for selecting and administrating the most appropriate techniques for treating such exposures. Risk management has both pre-loss objectives -- economy, reduction of anxiety, and meeting externally imposed obligations as well as post-loss objectives -- survival of the firm, continuity of operations, stability of earnings, continued growth, and social responsibility. The major methods of handling risk are (a) avoidance, (b) retention, (c) non-insurance transfers, (d) loss control, and (e) insurance.

Risk management is mainly concerned with (a) business risk management, and (b) personal risk management. The business risk management process includes five steps: (a) identification of potential losses, (b) evaluation of potential losses, (c) selection of appropriate techniques for treating loss exposures, (d) administration of the programme, and (e) monitoring of results. The personal risk management handles family property and liability risks, and treats personal risks associated with death, accidental injury, sickness, unemployment and old age, utilizing the techniques of social insurance, employee benefit plan, and individual insurance as well as some non-insurance measures like loss control and retention.

The third chapter, Life Insurance Protection, is devoted to a systematic study of life insurance protection. The institution of life insurance is described as a universal response to society's quest for security. As one of the oldest institutions for mitigating the loss potential of risk, life insurance is considered to be the most important illustration of the transfer technique, and the keystone of most risk management programmes. It is the
sole technique of protection of the life value against three types of death-- physical death, living death, and retirement death -- and it has no substitute.

A brief history of life insurance illustrates how it has developed to occupy the present outstanding position in the business world. Despite many variations of life insurance polices, there are only three basic types of life insurance plan -- (a) term insurance, (b) whole life insurance, and (c) endowment insurance. In order to be more competitive with other financial institutions and thereby to overcome the criticism levelled against traditional cash value polices, insurers have developed a wide variety of innovative whole life products that combine insurance protection with an investment element. These innovations in whole life insurance include (a) variable life insurance, (b) universal life insurance, (c) variable universal life insurance, (d) current assumption whole life insurance, and (e) adjustable life insurance. Special-purpose polices such as (a) family income policy, (b) family policy, (c) multiple protection policy, (d) economic policy, (e) vanishing premium policy and (f) juvenile policy are designed to meet certain needs of individuals and families.

The measurement of risk is possible through the application of mathematical laws known collectively as the theory of probability. To provide proper life insurance protection to individuals, two basic methods --- (a) yearly renewable term method, and (b) level premium method --- are generally used. While life insurance is based on the family's head's current wage and salary income devoted to the support of dependents, health insurance is based on the total earned income for the support of not only dependents but also the family head himself/herself. The present individual health insurance coverage includes a) hospital expense insurance, (b) surgical expense
insurance, (c) physicians expense insurance, (d) major medical insurance, (e) disability-income insurance, and (f) long-term care insurance. Health insurance is basically a form of life insurance in that it supplements and protects existing life insurance.

The fourth chapter, **Approaches to Optimal Life Insurance Protection**, discusses different approaches -- human life value approach, needs approach and capital retention approach -- to optimal life insurance protection with a view to determining as to how much life and health insurance should one own. The human life value (HLV) concept provides the philosophical basis for life insurance purchase decision. It is based on the fact that every person, who earns more than is necessary for his or her own self-maintenance, has monetary value to those who are dependent upon him or her. Defined as the present value of the family's share of the deceased breadwinner's future earnings, the HLV concept provides an economic rationale for life and health insurance purchase from a replacement cost perspective. Furthermore, the human life value should be recognized as the creator of substantially all property values. It may be said to be a key to the turning of property into a productive force.

In the needs approach, the various family needs of a given individual must be met in the event of his or her premature death or disability. After considering other sources of income and financial assets, the needs of the family are converted into specific amounts of life insurance. The difference between the funds needed to meet the financial objectives or needs of the family, and those available from other sources, represents the amount of life and health insurance needed. A critical analysis of the needs approach reveals that it tailors our life insurance protection to our individual needs. However, the
needs approach, from a purely sales standpoint, is regarded as more realistic than the human life value approach.

The capital retention approach is designed to accurately calculate a family's life insurance needs, and it is based on the application of the present value concept. Unlike the needs approach which assumes liquidation of the life insurance proceeds, the capital retention approach preserves the capital needed to provide income to the family. Based on the capital retention, the amount of life insurance needed can be estimated by preparing a personal balance sheet, by determining the amount of income-producing capital, and by deciding the amount of additional capital needed, if any.

Although the needs approach and the capital retention approach are considered to be more realistic and practical than the human life value approach from sales point of view, the HLV approach is more comprehensive and desirable inasmuch as it takes into account the all life needs of the entire group of family in the event of the premature death of the breadwinner, as well as the need for protection against economic death of an individual. The present study is, therefore, based on the human life value approach in its attempt to arrive at the optimal life insurance protection needed by an individual.

The fifth chapter, Human Life Value Approach to Optimality, offers an in-depth study of the human life value (HLV) approach to optimality, in order to show how it measures the economic value of human life. The human life value concept is presented in its historical perspective, showing how a great many philosophers and economists have contributed to its growth and development. Approached from the HLV perspective, the value of investment in the human capital can be determined by taking the present value of the potential future earnings, just as the value of physical capital goods are determined by discounting its income stream. Ever since the HLV concept has been
widely accepted by all those associated with the institution of life insurance, it has been changing the widely held view that life insurance is essentially a physical death proposition, with no profit to the premium payer.

However, the HLV concept is more than just a statement that a human life has an economic value, involving as it does five important concepts: (i) appraisal and capitalization of human life value, (ii) recognition of human life value as the creator of property values, (iii) family vis-à-vis human life value, (iv) economic link between generations, and (v) application of business management principles to human life value. The insurable value of an individual's economic possibilities is the monetary worth of the income forces that are incorporated within one's being, namely, ethical behavior, good health, investment in the mind by way of education and training, industry or willingness to work, creative ability and judgment, and patience and ambition to translate the economic dreams of the mind into tangible realities for the benefit of the self, family, and mankind, in general. Despite the far-reaching significance of HLV concept, it is subject to loss through a number of serious risks --- premature death, temporary disability, total and permanent disability, retirement, and unemployment.

Furthermore, by providing a normative economic approach to life and health insurance planning, the HLV concept reveals how one ought to replace oneself meaningfully as a wage earner in the event of one's premature death or disability. It is to be noted that the HLV concept provides only an economic rationale for the purchase of life and health insurance, but not an economic explanation. Hence, the economic theories of consumption as well as the consumption theories relating to life insurance that provides an economic explanation for the purchase of life and health insurance are
examined. Thus, the human life value approach to optimality reveals that life insurance, in its economic mission, is not limited to the indemnification of the loss of life and property values in that it is creative to the insured himself/herself to accomplish his/her economic purposes. With all its lapses and limitations, the HLV approach, is recognized and upheld as the most appropriate way of measuring the economic value of a human life.

The sixth chapter, Indian Life Insurance Policy Holders: A Case Study, provides an analysis of the case study of Indian life insurance policyholders in an effort to show the practical application of some of the principles and techniques of human life value approach, examined earlier in the thesis, to optimal life insurance protection. The information gathered from the select policyholders, through administration of a schedule and a data sheet, has been processed and subjected to statistical treatment. The collected data has been tabulated and analyzed within the framework of the objectives and the hypotheses of the study, resulting in certain findings.

The last chapter, Summary and Conclusions, is devoted to summing up of the main argument of the thesis, drawing certain conclusions based on the findings of the case study of Indian life insurance policyholders. In addition, some relevant observations, suggestions and recommendations are made based on the study.
(A) Limitations of the Study

However, the study is not free from certain limitations, given the complex nature and profundity of the chosen subject, on one hand, and the constraints of the secondary sources, on the other. The complexity and profundity of the subject emanate from the lofty characteristics of the HLV concept—ethical behaviour, good health, willingness to work, investment in the mind by way of education and training and experience, creative ability and judgment, patience, and ambition—that have to be measured along with the quantitative characteristics in order to estimate the human life value of an individual. But, in the present study, the human life value of the select Indian life policyholders is estimated on the basis of the quantitative characteristics of the HLV concept only, in the absence of any established inventory to measure its qualitative characteristics. Besides, the lack of secondary sources in the form of books and articles in standard journals by Indian authors on risk management and insurance, in general, and human life value concept in particular, dealing with Indian situations and conditions, has been a big constraint in formulating the materials of the present work. Moreover, there has hardly been any significant research work in this field in India that could have provided some insights for the present study. The study is also circumscribed to some extent by the limited sampling. Nonetheless, the study has its own significance.
Significance of the Study

The study addresses itself to the task of establishing a conceptual framework for estimating the value of assets in the form of human capital. It seeks to show how, approached from human life value (HLV) concept viewpoint, life insurance assumes a creative role in man's economic affairs. It is upheld that in its economic mission, life insurance is not limited to the indemnification of the loss of life and property values. The study shows that although it is very important for the benefit of dependents, life insurance should not be viewed merely as a tool of protection. It is highly productive and creative to the insured himself/herself in that it enables him/her more conveniently and quickly than any other scheme to accomplish his/her economic purposes. What is more, by relieving the insured of his/her anxiety, providing an overt and constructive outlet for his/her emotional concerns, and freeing him/her from worry and fear, optimal life insurance protection enables him/her to take initiative and develop efficiency and enhance peace of mind.
Notes and References

1. The whole world has been shocked by the terrorist attack on the twin towers of the world trade center in New York and the Pentagon in Washington on 11 September 2001. About 7000 persons, who died or were missing, belong to 62 countries. Among them were over 300 Indians or Americans of Indian origin, the largest group of victims after the Americans and Britons. From the twin towers of the American Dream, those most unfortunate Indians could not reach the exist door to life. They live in the memory of the living, who have become part of mourning America. (India Today, Vol. XXVI, No. 40, October 1, 2001) 43


