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AN ANALYSIS OF KEYMAN INSURANCE  
AS A RISK MANAGEMENT TOOL  
DESIGNED TO PERPETUATE BUSINESS PROFITS

By

Ronald W. Lundquist

B. S. University of Montana, 1957

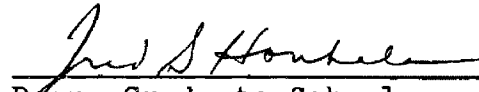
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Master of Science

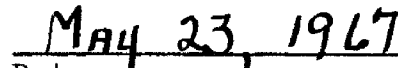
UNIVERSITY OF MONTANA

1967

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## PREFACE

Much of the literature read by business students today is directed toward computer science, scientific management, organizational structure, lines of communication, and trainee programs; all designed to insure successful continuation of the enterprise in the face of uncertainty.<sup>1</sup> The study of these areas is not only inspirational and intriguing but quite necessary to the continued progress of our economy.

This thesis is an attempt to analyze keyman insurance, a "risk-management" tool designed to provide the funds necessary to assure successful business continuation when loss of a keyman occurs.

The approach to the thesis is made with two objectives in mind: (1) a discussion of the criteria firms might use to study the keyman problem, and (2) an evaluation of the effectiveness of keyman life insurance as a risk-management tool.

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<sup>1</sup>In this thesis the word uncertainty describes the probable loss of a keyman. "Loss for an individual is a possibility; for a group of individuals, it is a certainty." Thus, the loss to any particular firm is the uncertainty. See Clifford L. James, Principles of Economics (New York: Barnes & Noble, Inc., 1962), p. 75.

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## INTRODUCTION

The steps used to examine the keyman problem will be as follows:

1. Procedures and communications should be established . . . to allow for . . . discovery of the potential (pure) risks that may arise in the activities of the business firm . . . . Risk discovery is the first and perhaps most difficult function the risk manager . . . must perform.

2. After identification of risks, the next important step is the proper measurement of the losses associated with these risks. This measurement includes a determination of (a) the probability or chance that the loss will occur, [and] (b) the impact the losses would have upon the financial affairs of the firm, should they occur . . . .

3. Once the risk is identified and measured, the various alternative solutions or tools of risk management should be considered and a decision made with respect to the best combination of tools to be used in attacking the problem . . . .<sup>2</sup>

Certain limitations are necessary to keep the discussion related to the keyman problem per se, and conclusions will be drawn with these limitations in mind.

First, a keyman is defined as "an indispensable man whose departure would cripple or impair a sizable part of the business operation."<sup>3</sup> This definition will be amplified in Chapter II.

Second, risk-management is "the minimization of the adverse

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<sup>2</sup>C. Arthur Williams, Jr. and Richard M. Heins, Risk Management and Insurance (New York: McGraw-Hill Book Co., 1964), pp. 14-15. (Regarding step 3, other tools will be briefly mentioned, however, the main analysis will be of insurance as a tool.)

<sup>3</sup>Salim E. Caraboolad, "Insuring the Keyman," Management Review, Vol. LII, No. 12 (December, 1963), pp. 56-58, condensed from Credit and Financial Management (October, 1963).

effects of risk at minimum cost through its identification, measurement, and control."<sup>4</sup>

Third, problems of business ownership will not be discussed because the personal aspects of estate planning and providing for heirs are concerned with other areas of business and personal insurance and other risk-management tools.

Next, the emphasis will be directed to protecting the business rather than the keyman. The impression derived from reading about protecting and compensating the keyman is that the firm can protect him. Compensation may reduce the risk of the keyman quitting, just as safety devices lower accident rates, but, from the firm's standpoint, it is profit that should be protected.

If the ultimate aim of our society is, as stated by so many economists, "to do the most good for the greatest number at the least cost in terms of labor, capital, and material,"<sup>5</sup> then protection of the business enterprise is the point to be discussed, i.e., it is the business that needs protection, not the keyman personally.

Generally, an idea starts the enterprise, and once organized, the business and the man or men who originated the idea become synonymous. Thus, once the business is established, continuation of the business in the face of adversity should become the most important consideration

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<sup>4</sup>C. Arthur Williams, Jr. and Richard M. Heins, Risk Management and Insurance (New York: McGraw-Hill Book Co., 1964), p. 11.

<sup>5</sup>Richard H. Leftwitch, The Price System and Resource Allocation (third edition; New York: Holt, Rinehart & Winston, 1966), pp. 1-10; and George J. Steigler, The Theory of Price (New York: The MacMillan Company, 1965), pp. 3-10.



because now more than one man's livelihood is at stake. In fact, a part of our economy is threatened if the business should fail. As the men who started the business become older, they must plan for further safeguards that will protect the continuance of the enterprise.

Next it is the small firm, either in its infancy or one with limited capital which deserves the major emphasis. As a guide for this thesis, a firm is considered large when departmentation and distinct chains-of-command are defined; when more than one or two individuals are directly concerned with a key facet of the business so that the loss of one person would not be considered either sizable or total; when the services offered or products produced are developed into multiple markets and diverse uses, so that the loss of a key salesman or key account for one product or service is minimized. In our present economy it amounts to not "putting all the eggs in one basket." A small firm is considered as one not meeting these criteria and thus it is this firm that has the most to lose.

Most large corporations operate extensive training programs. These programs are undertaken to assure successful operation of the business when a keyman dies or leaves the firm for some reason. Training programs provide well-schooled "understudies" capable of taking over. For the business with growth potential and investment capital, the very existence of our growing economy depends on such a system of replacement and this becomes the preferred means of successful business continuation.<sup>6</sup> It should be added, however, that even the larger firms have

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<sup>6</sup>Thomas C. Cochran, The American Business System (New York:Harper & Row, 1962), pp. 164-205.

keyman problems, therefore a good part of this thesis should apply to both large and small firms.

In many instances, keyman losses in the small firm can mean the difference between growth and failure, vitality and stagnation. Few small businesses have even a portion of the financial resources available to larger enterprises. Frequently, they must operate on a very slim margin if they hope to stay in business.

A small firm finds it difficult to handle the full burden of its potential loss or uncertainty. The amount of money it would have to set aside or invest in a trainee to cover possible human losses would leave nothing or almost nothing with which to run the business. Even if a loss were to occur which could be covered by a reserve fund, what assurance would there be that another loss might not occur in the near future before a new reserve could be built up again or before another replacement could be trained?<sup>7</sup>

There is also the probability that the keyman will die before the initial trainee or contingency fund can materialize. For any risk-management tool to be reliable as a source of funds, time becomes a most important variable--time to set up the needed reserve; time to hire and/or train a replacement; and timing in the money market if funds need to be borrowed or if additional stock or bonds are issued.<sup>8</sup> The above-

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<sup>7</sup>Mark R. Green, "Insurance and Risk Management for Small Business," Management Research Summary (October, 1963), pp. 3-4.

<sup>8</sup>Institute of Life Insurance, "Sole Proprietorship Life Insurance," Management Aids for Small Manufacturers, No. 131 (Washington: Small Business Administration, 1961), pp. 1-2.

mentioned risk management tools will be discussed briefly, but the major emphasis will be placed on keyman life insurance.

In the final analysis, locating and valuing the keyman (men) in relation to the firm's success will determine the need. Regardless of size, if a firm finds that the loss of an individual or individuals threatens its very existence as a profit-making concern, it falls within the scope of this thesis.

Probably most important, it is the degree or intensity of uncertainty felt by the firm with regard to the probability of loss that encourages action. Until this feeling of intensity reaches a point where a desire to do something becomes paramount, no solution can be offered because no problem exists in the mind of management.

PART I

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THE KEYMAN

## CHAPTER I

### IMPORTANCE AND RISK OF THE KEYMAN

With the speed of automation and the advance of "computer science," some authors give the impression that the value of men is lessening and, conversely, that the value of the machine and/or computer is increasing.<sup>9</sup> Without studying this particular line of reasoning, the analogy would seem to be correct, for the value that computers provide to modern business is just now being recognized, and this knowledge is increasing at such a fast pace that its true value may not be known for years. However, one other thought deserves mention. That computers and machines are able to replace a number of men in any particular business means that fewer men are left to control more capital and more facets of the business than ever before. These men become more of a key to business success than did any one man in the same business before automation took over.<sup>10</sup>

Thoughtful businessmen see the situation quite clearly because they know that profit depends largely on men and not on capital, machinery, or merchandise.<sup>11</sup> Visualize a firm without a brain; a store filled

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<sup>9</sup>Everett M. Kassalow, "Labor Relations and Employment Aspects After Ten Years 1962," Morris Philipson, ed., Automation (New York: Random House, 1962), pp. 316-336; and others.

<sup>10</sup>Edward T. D. Calhoun, "Why Machines Will Never Think," Morris Philipson, ed., Automation (New York: Random House, 1962), pp. 180-212.

<sup>11</sup>Advanced Underwriting Department of New York Life Insurance

with everything but merchandising ability; row upon row of machinery, orders piled skyhigh, without an experienced production man; a remarkable new product, but without an inspired sales policy; the finest laboratory in the world without a skilled chemist; or, a business being moved along swiftly and profitably by the genius of one man, suddenly put in low gear or reverse because that keyman is lost. Here is the story of what has happened to thousands of businesses in the past and what will happen to more businesses in the future.<sup>12</sup>

Dun & Bradstreet have analyzed 17,075 business failures which occurred in 1965, and the underlying causes are as follows:<sup>13</sup>

<u>Cause of Business Failures</u>	<u>Controllable</u>	<u>Uncontrollable</u>
Neglect	3.0%	
Fraud		1.3%
Lack of experience in the line	9.8	
Lack of managerial experience	17.2	
Unbalanced experience	19.9	
Incompetence	44.4	
Disaster (Fire, flood, burglary, etc.)		0.8
Reason Unknown		3.6
	<hr/>	<hr/>
	94.3%	5.7%

The causes listed by Dun & Bradstreet are a little vague and general, but after those causes beyond the control of management have been eliminated, namely Fraud, Disaster, and Reason Unknown, the impor-

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Company, "Key-man Life Insurance," Business Insurance and Estate Problems (New York: New York Life Insurance Company), Vol. 63-6 (June 1963) p. 1.

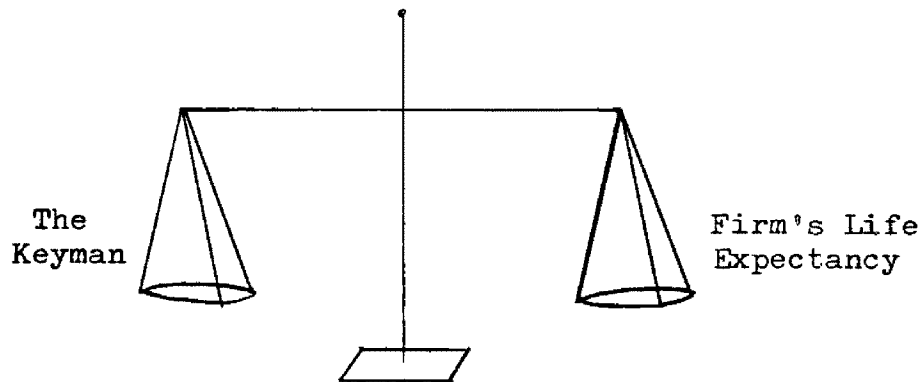
<sup>12</sup>Ibid., p. 2.

<sup>13</sup>Advanced Underwriting Division, ed., Business Insurance (Vol. II of The R & R Advanced Underwriting Service in Four Volumes: Indianapolis: The Research & Review Service of America, Inc., 1965), p. 16-3.

tance of keymen, or at least some managerial talent, to successful business continuation becomes much clearer.

Another disturbing fact is brought out by a study which concluded, "The 'life' expectancy of the average business in the United States today is not more than seven or eight years."<sup>14</sup>

By intuitively weighing the major cause of business failure, i.e., no keymen, with business "life expectancy," the picture is complete.



If the keyman is lost, the firm's life expectancy decreases. Conversely, the addition of keymen will increase life expectancy.

Another approach which points out the importance of keymen involves the use of capital and expected rate of return. Borrowed capital or money may be worth about five to six per cent, the prime rate of interest for large firms. The firm then invests this money in machinery or materials which by themselves produce no profit. Profit from merchandise depends almost entirely upon the ability to produce and/or sell it under favorable or unfavorable conditions.<sup>15</sup>

Assuming the above statements are true and the firm achieves its expected rate of return, say, fifteen per cent net profit before taxes,

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<sup>14</sup>Ibid.

<sup>15</sup>Calhoun, op. cit. , p. 184.

to what does the firm attribute the ten per cent (fifteen per cent minus five per cent) that is not accounted for by capital?

It is the human asset--the skill, knowledge, ability, judgment, <sup>and</sup> leadership, and/or experience of the individual(s) who make it possible for the business to produce profit.<sup>16</sup>

Little else needs to be said about the general importance of keymen. The point to be made is that there are risks faced by the firm that employs a keyman.

Simply stated, the risks are:

1. He may die before retirement.
2. He may quit.
3. He may become disabled.
4. He may become mentally obsolete.

Some amplification of these risks is needed.

Normal life expectancy as indicated in mortality tables is charted in Figure 1 to show the increasing probability of risk as the number of keymen increases. For example, as the number of keymen, age 35, increases from one to three, the probability of a keyman's death increases from .275 to .618. This would seem to indicate that the firm with three keymen should look harder at the problem. However, if it is assumed that each keyman accounts for a proportionate percentage of the firm's profits, then the firm with only one keyman has the most to lose even though the probability of death is less. Thus, the severity of loss must be viewed in relation to the probability of loss.

Current literature in management texts and articles discusses the

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<sup>16</sup>Dana L. Farnsworth, "Health under Pressure," Harvard Business Review, Vol. XXXV, No. 6 (November-December, 1957), p. 48.



FIGURE 1

ODDS OF AT LEAST ONE DEATH BEFORE AGE 65 EXPRESSED  
AS NUMBER OF CHANCES OUT OF 1,000<sup>a</sup>

One Key Man		Two Key Men		Three Key Men	
<u>Ages</u>	<u>Chances</u>	<u>Ages</u>	<u>Chances</u>	<u>Ages</u>	<u>Chances</u>
35	275	30-30	485	30-30-30	631
40	264	35-35	474	35-35-35	618
45	248	40-40	458	40-40-40	602
50	224	45-45	435	45-45-45	576
		50-50	398	50-50-50	533
		30-35	380	30-35-40	617
		35-40	466	35-40-45	599
		40-45	447	40-45-50	570
		45-50	417		

<sup>a</sup>William F. Casey, Life Insurance Desk Book (New York Institute for Business Planning, Inc., 1964), p. 231.

question of executive worth, indicating how justifiable compensation for executives or keymen can be determined.<sup>17</sup> The idea being, of course, to keep a man from leaving one company in favor of another, either by choice or due to what legal texts refer to as "proselyting." Executives' cash incomes often have been sharply increased by tax-sheltered rewards, most notably by annuities, deferred pay, and stock options, and by an extraordinary collection of tax-free fringe benefits.<sup>18</sup> But, even though incentives reduce the overall probability of loss, they do not eliminate the risk of a keyman just quitting a firm.

In the area of disability, the mere existence of medical science and the need for it establishes the fact that people get sick and have accidents. That certain occupations are more or less hazardous than others is an accepted fact. But, however large or small the risk, management must consider how that risk affects the value of keymen.

Finally, the businesses of today must assess the possibility of mental obsolescence. Does the firm merely replace the keyman if he becomes obsolete, or is there an obligation to attempt to re-educate and re-establish him once again as a true keyman? When the firm began, the keyman was the brains, the innovator, the success of the business. However, as new and highly technical business methods are discovered, the

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<sup>17</sup>Perrin Stryker, "How Much is an Executive Worth?," Ernest Dale, ed., Readings in Management: Landmarks and New Frontiers (New York: McGraw-Hill, 1965), pp. 292-295; and Arch Patton, "What is an Executive Worth," Harvard Business Review, (March-April, 1961), pp. 65-73.

<sup>18</sup>Perrin Stryker, "The Pirates of Management." in Huxley Madeheim, et al., (editors), Readings in Organization and Management, (New York: Holt, Rinehart & Winston, 1963), pp. 273-284.

keyman may fall behind.

Men don't age, they become obsolete. It starts the day you leave school. All around you new fields develop. Soon you are surrounded by worlds from which you are fenced out: the ac-19 counting country, the electronics empire, computer land . . . .

As this problem involves the moral and ethical responsibility of business, no attempt will be made to resolve it. However, the risk implied must not be overlooked in business planning.

A mathematical approach to the probability of loss based upon the previously-mentioned risks may be valuable. A formula for determining the probability is visualized as follows:

Assume: No other variables.

$$P_1 = [ 1. - (a'b'c'd') ]$$

- Where:
- $P_1$  = Probability of keyman loss
  - $a'$  = Probability of death
  - $b$  = Probability of disability
  - $c$  = Probability of quitting
  - $d$  = Probability of mental obsolescence
  - $1$  = Total or 100% probability of loss
  - ' = Complement of the probability

Thus, using the death probability table in Figure 1, one keyman, age 35, has a probability of death of .275. The complement is .725, and if the probability of  $b$ ,  $c$ , and  $d$  were only .050 each (which is a conservative estimate),<sup>20</sup> their complements would be .950 each.

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<sup>19</sup>Wolfgang Langewiesche, "Now You Can Double Your Learning Power," Reader's Digest, Vol. XC, No. 540 (April, 1967), p. 112.

<sup>20</sup>Disability figures have been computed, but each firm may have to adjust this figure to correspond with industry accident rates. The chance of the keyman quitting might be based on past experience of keyman turnover. Obsolescence will vary with the type of industry and speed of innovations within the industry.

$$P_1 = 1. - (.725 \times .950 \times .950 \times .950)$$

$$P_1 = 1. - (.6216)$$

$$P_1 = .3784$$

Thus, the probability of loss from all risks could be over ten per cent higher than from death losses only. Admittedly, this formula has not been tested, leaving some doubt as to its validity and usefulness, but the approach points out that the firm must consider all relevant risks when evaluating the keyman problem.

In summary, the vital element which leads to success in business is the keyman. His importance presents a problem which can be evaluated if the risks which threaten his loss to the firm are recognized.

## CHAPTER II

### IDENTIFYING THE KEYMAN

Merely admitting that keymen exist and that they are valuable, especially when risks are considered, does not solve the problem. The next step is to answer the question, "In this corporation, who is he?" or, "Who are they?"

In the small firm with sometimes only one or two people involved, identification is simple. There are also firms producing specialized products and services as a result of one or two highly trained specialists. Keymen are therefore easily traced. But, in larger enterprises with what might be termed "general products and services," the problem becomes much more difficult.

S. S. Huebner has suggested the following general criteria:

With respect to any individual really important to the business, there must be, if life insurance is justified, (1) irreplaceability of the valuable life altogether or (2) irreplaceability for a substantial period of time. It must not [underlining mine] be assumed, as is so often done, that officials with high rank are necessarily valuable to the particular business, life insurance-wise.<sup>21</sup>

"Irreplaceability of the valuable life altogether" is probably a little strong as it implies that never could any amount of money replace the keyman. Physically speaking, this is probably true, but in the business world, no man is completely irreplaceable.

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<sup>21</sup>S. S. Huebner, The Economics of Life Insurance (New York: Appleton-Century-Crofts, Inc., 1959), p. 58.

What Mr. Huebner meant by "a substantial period of time" is a point worthy of further discussion. If a time lag of six months or a year caused by the loss of a man could injure a firm's competitive position so as to threaten its profitable existence, a keyman has been found.

For example, the loss of a top dress designer for three months could mean the loss of the entire fall and winter orders to a dress manufacturer. Employees would be laid off; machinery would be idle; material inventory would be untouched; fixed expenses would continue; and borrowing credit would be threatened. Most important, what are the chances of this firm in financial difficulty hiring another top dress designer?

What about the man whose name or reputation has meant success to the business? History has proven that no man is completely indispensable, but the success that a top salesman or scientist has built up through years of integrity, hard work, and good service may be more closely associated with the individual rather than the firm and as such may take years for the firm to replace.

Why is it that many corporations today still use their original name when no one of that family remains in the firm? The answer is, of course, the good will that the original name generated. The name and reputation which went with it are still of value to the business.

Another keyman has been found if the loss of a man could injure the credit standing of a firm so that borrowing for business needs would become measurably more difficult than when the man was there.

For instance, most bankers require a detailed financial statement

to decide whether the firm in question can handle a loan, such as for expansion. In addition to being concerned about the loan, bankers have gained knowledge through experience which enables them to advise the firm on the project being contemplated. Included in this financial statement is a breakdown of insurance policies owned by the firm on the lives of those people considered most responsible for the firm's success. If the lender feels there is a lack of or insufficient amount of insurance, he will require a minimum amount regulated by their lending policy before the loan is approved.<sup>22</sup> Of importance to the firm, the lender will indicate those people he feels are the key to success. Thus, the lender may help solve the identification problem.

Another area where keymen are found involves veteran operators who seem to have a sixth sense that enables them to smell trouble before it happens and thus solve problems before they arise.<sup>23</sup> An example of this situation might be found in industries where a shut-down of three or four days caused by a malfunction of one process or step brings everything to a stop, including customer service and profits. The keyman may be the engineer who put the machinery in proper sequence for the size plant involved. It may be that problems are less frequent than in other firms and when a breakdown does occur, it is corrected in a mini-

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<sup>22</sup>This information is a result of interviews held during March, 1967, with three banks and two building and loan associations in Billings, Montana. It was indicated that a similar procedure is used nation-wide.

<sup>23</sup>Bruce E. DeSpelder, "Management Planning for Sound Growth." Management Aids for Small Manufacturers, No. 122 (Washington: Small Business Administration, 1961), p. 2.

mum of time. A check of industry-wide breakdowns in comparison with the firm in question will aid in pinpointing this keyman.

To explore every possible area where keymen exist would be, to say the least, a rigorous task and is not the point of this section. The purpose is to encourage a deeper search on the part of management to determine the identity of those persons considered vital to the success of the enterprise or essential to its profitable operation.

Salim E. Caraboolad indicates a somewhat trite but nevertheless realistic description of a keyman, "An indispensable man whose departure would cripple or impair a sizable part of the business operation."<sup>24</sup> The following job titles may be of assistance in locating these keymen.

Business management executives--in this group are presidents, vice-presidents, treasurers, sales managers, advertising managers, and other vital top-level managers.

Production executives--in this group are the individuals in active charge of production. Included are factory managers, plant superintendents, foremen, personnel managers, and transportation experts.

Research Department executives--in this group are found chemists, metallurgists, technicians, engineers, experimental division heads, innovators, etc. In short, these are the men responsible for new methods of doing things, new products, or new processing.

General employees--men who have no title and who are not too highly compensated are found in this group. They will be found in towns

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<sup>24</sup>Salim E. Caraboolad, "Insuring the Keyman." Management Review, Vol. LII, No. 12 (December 1963), p. 57, condensed from Credit and Financial Management (October, 1963).



and villages as well as in large metropolitan centers. Their contribution to the success of the business can only be measured if they were no longer there. Think of mechanics, shipping clerks, buyers, those people who contribute to the successful small business firm.

Each firm must look at the idea of keymen based upon the nature of the business and the competitive structure within which the enterprise must function.

The final determinant in keyman identification is the value placed on his contribution to the firm's profit-making ability which will be discussed next.

## CHAPTER III

### VALUING THE KEYMAN

The question, "How much is an executive worth?" has been previously mentioned. But, what about the business? What will the loss of a keyman cost the firm and, most important, how is the loss determined? The answers will be attempted in this section with recognition that some of the values to be determined are a question of judgment--of subjective thinking on the part of management. The true or precise value will not be known until the loss occurs, if then.

To value a keyman short of his actual worth could burden a firm financially at the time of loss; overvaluation could cost unnecessary reserve or premium dollars if insurance were chosen as the solution.<sup>25</sup>

Each firm will weigh the effects of a keyman loss with differing degrees of importance, but listed below are common considerations which must be analyzed.

1. The cost of hiring a replacement. As more education and experience become necessary, the cost of this replacement rises. As the business becomes more complex or more scientific, this cost rises. To draw an individual away from another firm, especially one who may feel some loyalty to his present firm, may also be costly.

To view this cost another way: generally machinery is purchased

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<sup>25</sup>Ibid., p. 56.

to give economic life to a firm. If it prematurely wears out or breaks down, the machine is repaired. Should it become obsolete, a new machine is purchased, which except for "debugging"<sup>26</sup> replaces the old machine, usually with a higher degree of efficiency. If money is not readily available, the machine can be bought over a specified period with certain financial considerations.<sup>27</sup> Not so with a man, and getting one with more efficiency is highly improbable. Even "pirating" a man from a competitor involves such questions as: "How long will it take to find a man to pirate?," "How much incentive must be offered?," "Will it cost more than the present keyman?," "Will the first man 'pirated' work?," and "If he is the right man, how much time lag will there be before he is producing at the firm's expected rate of return?"

These are but a few of the considerations that management should look at when analyzing the cost of hiring a replacement.

2. The cost of training a replacement. This cost may be partially offset if, in hiring a replacement, you are able to find someone who already has experience and education, but, as in "pirating," there will be some training costs. If, however, you must hire someone with little experience and/or education, this cost becomes quite important. Must this replacement be sent to school? Is there another person within the firm who can train this man or who can work with him without taking

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<sup>26</sup>Rarely does a process (word mine) run perfectly the first time. The removing of the errors in it is known as "debugging." See Gordon B. Davis, An Introduction to Electronic Computers (New York: McGraw-Hill Book Co., 1965), p. 199.

<sup>27</sup>Joseph F. Bradley, Administrative Financial Management (New York: Holt, Rinehart & Winston, 1964), pp. 154-170.

too much away from the trainer's own business responsibilities? If there is no trainer available as is generally the case in small business firms, can the owner with his own business details to look after take the time to train this replacement? In essence, there is not only the cost of training this replacement but the lost time to be made up at night or on weekends to catch up on detail work. As a result, the owner may not be able to do as much as before, lowering his own profit-making potential.

3. The cost of trainee's mistakes. It is difficult to make any general statements regarding this cost as each business is different. A particular firm's policy or structure of business may not place a premium on this particular cost. In the area of selling, for example, the mistake of a sales representative dealing with contracts involving a large amount of money could indeed cause this cost to be of paramount importance.

4. The cost of disruption upon death. Probably the greatest cost in this area is the time involved in the initial hiring of either a replacement or a trainee. The time will vary between industries, but a "pre-loss" study will give a close approximation based on demand for the skill(s) needed as well as an indication of the cost necessary to "buy" a replacement. It will also show where other people may be located and therefore reduce some costs.

Beyond this, there are minor cost considerations that each individual firm must analyze, such as a possible pension to the widow or a death benefit which the firm feels obligated to pay. There is, in the case of a scientist, also a consideration of new ideas or techniques he

may have had in mind which may have been of value to the company but are now lost because they were not written down or otherwise discussed with another member of the firm. This is admittedly one of those subjective areas which are difficult, at best, to value.

5. The cost of business lost and intangibles. Business lost and intangibles (prestige, good will, credit, etc.) run quite parallel to one another. Prestige, for example, may have been gained by a particularly good salesman or scientist who through years of diligent service and integrity has built up close customer relations which may have to be regained. Credit is another area which has been briefly discussed. The ability of a man who is alive and respected to borrow money for business ventures may now be lost to the firm, and thus a very valuable business asset needs to be considered in terms of increased interest rates and possibly the loss of the ability to borrow at all.

There are other cost areas that could undoubtedly have effects on different types of businesses and each firm must search beyond those listed above.

Each factor must then be assigned a dollar value, not only for the present, but with an eye toward the future. Will these costs increase or decrease as the firm continues? The answer to this question may have considerable influence on the way in which the firm chooses to face the uncertainty and also on the proper combination of risk-management tools needed to insure its objectives. It may even be that the firm will choose to expand on more than one alternative tool at a given point in the firm's growth.

From the standpoint of profits, the loss of a keyman may have the

following effects from outside sources:

(1) Less liberal terms from suppliers--the anxiety of creditors as to the company's future without his [the keyman's] contribution to company [operations] . . . .

(2) A tightening of financial assistance--the tendency of bankers [lenders] to adopt a wait-and-see policy with respect to company stability.

(3) A slowdown in company business--the hesitancy of customers concerned about future production and service.

(4) An actual loss in company business--valuable accounts formerly retained because of a close relationship between the [keyman] . . . and the customer may go elsewhere.<sup>28</sup>

One approach (which might be termed systematic) used to determine the keyman's value:

. . . takes the tangible value of [a] business, figures an investment return on that tangible value, say 5%, deducts that from average profits after taxes, capitalizes the difference at a multiple of 5 or 6, and treats the resulting figure as the earning power derived from the application of management skills to tangible assets. This figure is then divided among the keymen according to their estimated contribution to the profitability of the business . . . .<sup>29</sup>

For example, suppose the tangible value of a firm (i.e., buildings, merchandise, and machinery), is \$200,000 and that five per cent is used for an investment return on the tangible value. Then, \$10,000 would be deducted from average profits after taxes each year to determine the keyman's (men's) contribution to profit. This profit is then divided among the keymen according to their "estimated contribution" to

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<sup>28</sup>The Research & Review Service of America, Inc., Key-Man Insurance (File No. 18. Indianapolis: The Research & Review Service of America, Inc., 1965), p. 5.

<sup>29</sup>William J. Casey, Life Insurance Desk Book (New York: Institute for Business Planning, Inc., 1964), p. 229.

profit. The estimate may be easy to determine if only one or two keymen are involved as the firm usually has some notion of their value. With more than two keymen, such sources as sales records, past production performance, and opinions of creditors and lenders will be helpful in making a percentage estimate of each keyman's addition to profit.

Suppose, at this point, that a keyman is worth \$100,000 to a firm, i.e., after salary, taxes, cost of doing business, etc., he brings the firm \$100,000 annually. Suppose also that it would take at least three years for a trained replacement to earn the firm that amount. The keyman should then be insured for at least the "net present value"<sup>30</sup> of \$300,000 just to replace the lost profit that would result from his death.<sup>31</sup>

This section will not answer the problem of valuing the keyman in any one particular firm. Its purpose is to present some guidelines, which firms can look at, add to, or eliminate from, and thus come up with something which at least approaches the loss value which faces a firm when it has been determined that a keyman exists.

Finally, whatever approach is used, the value should include (1) the profit the keyman accounts for so that company growth and objectives can be maintained and (2) the amount of funds necessary to acquire a re-

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<sup>30</sup>Net present value figures will vary, dependent on what amounts and in what time periods the funds are to be received. For a discussion of "net present value", see Joseph F. Bradley, Administrative Financial Management (New York: Holt, Rinehart & Winston, 1964), pp. 217-239.

<sup>31</sup>Advanced Underwriting Dept. of New York Life Insurance Company, "Key-man Life Insurance," Business Insurance and Estate Problems (New York: New York Life Insurance Company), Vol. 63-6 (June, 1963), p. 1.

placement whether trained or "pirated." Then the firm must decide how much of the determined value it can accept (based on capability) or is willing to protect itself against (based on intensity of need).

The discussion, thus far, has focused on recognition and valuation of the keyman. The firm must now ask the question, "Does a problem exist?" An answer of "no" does not mean that the firm has no keyman problem, but has terminated the need to search for a solution. If, however, the degree or intensity of need for establishing a solution has reached a level where there is a desire on the part of the firm to "do something" about the problem, then Part II, "Keyman Insurance as a Risk Management Tool," is offered.



PART II

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KEYMAN INSURANCE AS A  
RISK MANAGEMENT TOOL

## CHAPTER IV

### OBJECTIVES OF AND OBJECTIONS TO KEYMAN INSURANCE

As stated in the Introduction, other risk-management tools which should be considered as possible solutions to keyman risks will be suggested throughout the insurance discussion.

The four risk possibilities, as previously mentioned, are: (1) premature death, (2) disability, (3) quitting, and (4) mental obsolescence.

The purpose of this section is to examine keyman insurance values as a solution to one or more of the four risks.

#### I. OBJECTIVES OF INSURANCE

One indication of progress is shown by the standard of living and the value of possessions that an economy has to protect. There is strong evidence to show that as society advances economically, its desire for security is magnified. By assuming that insurance represents one form of security, the following example is cited:

In 1964, per capita real income was just about double what it was in the pre-World War II year of 1940. In 1940, about 9.6% of our national income of 80 billion dollars went into private and public insurance. By 1964 this figure had increased to nearly 14% of the national income of just over 500 billion dollars. The absolute increase in annual flow into insurance was from about 8 billion dollars to about 70 billion dollars or within 10 billion dollars of our national income in 1940.<sup>32</sup>

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<sup>32</sup>Davis W. Gregg, "President of American College Talks on Freedom Fulfillment," The National Underwriter, No. 39 (Sept. 25, 1964), p. 50.

In the area of business insurance, there is a growing volume of literature centering around the corporate stock-purchase plan, the partnership buy-and-sell agreement, and estate planning for the sole proprietor. Insurance plans to cover these losses, in addition to providing for the heirs, are designed to take advantage of the tax treatment upon the death of an owner. It is agreed that this emphasis is important. There would also be agreement that the reason a majority of this type of insurance is sold is personal. That is, avoidance of taxes and a man's desire to protect an estate he may have spent a lifetime building.

According to Huebner, business insurance has assumed large proportions only within the past forty years for the following reasons:

(1) Stabilization of their business through the establishment of better credit relations.

(2) Protection against the loss through the death of those most valuable to its success.

(3) Arrangement of a practical plan for the retirement of the insured interests in the event of death.<sup>33</sup>

However, most authors tend to discuss only incidentally the area of keyman insurance, and the usefulness or objective expressed is quite general in nature.

For example, William R. Vance suggests that "the purpose of insurance is indemnity--nothing more."<sup>34</sup> Insurance advertising has dwelt on this point for the past fifty years.

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<sup>33</sup>S. S. Huebner, Life Insurance (New York: Appleton-Century-Crofts, Inc., 1949) p. 49.

<sup>34</sup>William R. Vance, Handbook on the Law of Insurance (third edition; St. Paul: West Publishing Co., 1951). p. 3.

Allan H. Willett, on the other hand, contends that "the purpose of procuring insurance is to avoid uncertainty," and that indemnity for the loss is only a subsidiary and incidental part of fulfilling the guarantee against the uncertainty.<sup>35</sup>

By securing a keyman policy the business establishes a condition of economic indifference to the occurrence of death. To follow Willett's logic, if the keyman does not die, the business is content. If he does, the insurance company will furnish the funds to replace him.<sup>36</sup> The firm thus avoids the disutility of uncertainty. If the real purpose of securing insurance is to avoid uncertainty, then the business receives each year full value for the premiums paid.

John H. Magee has suggested the most realistic objective of business life insurance as ". . . maintaining a business as a going concern . . ." <sup>37</sup>, but the important consideration is how well insurance accomplishes this objective.

## II. OBJECTIONS TO INSURANCE

Certain objections to insurance are of doubtful validity and will be mentioned in the hopes of eliminating or minimizing their effect.

According to Vance, the firm thinks of itself as cheated if it hasn't recently "collected."<sup>38</sup> This situation closely parallels the

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<sup>35</sup>Allan H. Willett, The Economic Theory of Risk and Insurance (Philadelphia: University of Pennsylvania Press, 1951), p. 115.

<sup>36</sup>Ibid., pp. 58-59

<sup>37</sup>John H. Magee, Life Insurance (revised edition; Chicago: Richard D. Irwin, Inc., 1951), p. 509.

<sup>38</sup>Vance, op. cit., pp. 2-10.

payment of social security and unemployment compensation which is paid begrudgingly by those who have never collected unemployment or those who know they could do better with the funds presently invested in social security for retirement purposes.

Some potential keyman insurance owners refer to car insurance as an example of their objection. "We pay for it year after year and never have a claim, so what value is it to me?" In this connection, Willett's purpose "to avoid uncertainty" fits.

Albert Linton suggests that "the primary difficulty rests with the basic attitude of people toward an intangible service like life insurance."<sup>39</sup> This attitude is quite different from the attitude of the average business toward the purchase of, say, a processing machine. The ownership of a new machine brings with it immediate tangible benefits which are enjoyed not only by the owner but all employees of the business in terms of income derived. When the time comes to buy a new machine, the main question involves satisfying predetermined performance objectives. If the money is at all available, the question of having no machine hardly ever arises.

In the matter of keyman insurance the situation is entirely different. The payment of an insurance premium involves doing away with some present monetary benefit in order that some financial benefits may accrue to the firm in the future.

The emphasis of the buyer and the seller should be on what hap-

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<sup>39</sup>Albert M. Linton, Life Insurance Speaks for Itself (New York: Harper & Bros., 1937), p. 94.

pens to the business interests at the time of the death of the keyman. That is, what provisions have been made to aid in the successful continuation of the business in the event of the keyman's death. With the ever-increasing changes in all areas of business, the "keyman" commands an even greater position in the success of the enterprise. Thus, his death can have a proportionately more disastrous effect on a successful business.

Death, however, is a difficult subject to talk about. People will admit they are going to die however, like making a will or drawing a trust deed, the inevitable human tendency is to put off positive action until a "more convenient time."<sup>40</sup> It has often been said that a wife is not a good person to ask about the value of life insurance because she has a husband; only the widow can tell you about the cost of not insuring. Likewise, a disastrous fire without insurance to cover the loss has taught many a man what was the cost of his negligence.

Many businesses look at the tax aspects of business life insurance arrangements which are important considerations. However, if too much weight is given to the tax angles and a new revenue bill proves disadvantageous, a firm may lose interest or confidence in the plan and never act. As further stated, "It would be unfortunate to sacrifice so many values because of one drawback."<sup>41</sup>

One tax-oriented objection is that life insurance premiums are

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<sup>40</sup> Ibid., p. 95.

<sup>41</sup> Institute of Life Insurance, "Business Life Insurance," Management Aids for Small Manufacturers, No. 130 (Washington: Small Business Administration, 1961), p. 2.

not deductible, but little significance is given to the fact that proceeds received at death are tax free.

To illustrate: assume a new tax law which allowed premium deduction but which taxed the proceeds. If a firm (which pays forty per cent taxes on profits) insures the keyman for \$100,000 with an annual premium of \$2000, a deduction may be taken and the premium effectively costs the firm \$1200 per year. But if the keyman dies, the firm could keep only \$60,000. Therefore, the firm should have insured the keyman for \$166,667 (if this does not exceed the insurance company's individual policy limits) with a premium of \$3,334 to keep the keyman's value of \$100,000. The effective annual premium would still be \$2000.

The point is, the present tax treatment appears to be advantageous rather than disadvantageous.

The implications are, first, that general uses and statements of purpose are not tangible evidences of need, and second, that the prospect of death is not generally enough to inspire positive action by businessmen.

It is undeniably true that keyman insurance by itself will not solve the replacement problem. The use of keyman insurance funds upon the death of a keyman or while he is living becomes the firm's reserve and/or funding source for a replacement program.

When a new business is conceived, there are numerous problems that an entrepreneur must face. He must view these risks with an eye to minimizing his probability of failure and maximizing his probabilities of success. It would be impossible to list all the variables that any business might encounter, but the attempt to analyze the values that

keyman insurance can offer a firm from its inception throughout its growth should prove profitable both to those businesses which do not now have keyman insurance and to those who do, but are unaware of its potentialities and its shortcomings.

### III. THE INSURANCE TOOL

Before any logical discussion of keyman insurance values is possible, an explanation of a basic insurance policy itself is needed.

Some people get the impression that the policy needed to cover the keyman is different from that needed to fund a stock-purchase plan or a partnership buy-and-sell agreement. They believe that one's personal life insurance plan to protect his widow from poverty requires a different policy than one needed to fund a college education for his children or pay off the mortgage; that a retirement income plan must be by its very nature different from a policy to pay taxes to salvage an estate.<sup>42</sup>

This is a misconception! The same policy can cover many contingencies. The differences arise in the individual and the time.

In the case of the individual, one owns a business, one does not. One has a large family; one has a small family. One has a large estate; another has a small one. It is because of these differences that individual needs become the primary incentive to the purchase of life insurance.

Time becomes the other variable which corresponds to man's cycle

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<sup>42</sup>This is a reflection of many calls on individuals and businesses during three years of life insurance selling, 1960-1963.



of life. Early in life a man's first need is to protect his family. As he gains wealth, buys into a business, mortgages a home, has children, sends them to school, creates an estate; his needs change. The policy didn't change; he did! The only change concerning the policy is made on the front page consisting of three items: (1) the face amount, which will usually grow; (2) the owner, which may or may not be the insured; and (3) the beneficiary.<sup>43</sup> Granted, some legal considerations<sup>44</sup> must be made as different needs arise, but the basic policy remains unchanged.

Huebner states:

All life insurance is business insurance but by custom we have chosen "family life insurance" when the insurance relates more closely to the family.<sup>45</sup>

To use one's "family life insurance" in a business may possibly be very desirable; however, it would require a close appraisal to make certain that family needs will not be neglected in favor of the business.

Many businessmen tend to consider their business and their family in two separate worlds,<sup>46</sup> therefore the thought of using family life insurance to cover a business loss is seldom if ever considered. Even though the policy is unchanged, the use to which it is put is determined by the buyer and not the seller.<sup>47</sup> This makes life insurance a very

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<sup>43</sup>Dan M. McGill, Legal Aspects of Life Insurance (Homewood, Ill.: Richard D. Irwin, Inc., 1959), pp. 124-139.

<sup>44</sup>Such items as a "stock purchase plan" or "buy-and-sell agreement" may be needed to make the contract binding. See Ibid., pp.149-50.

<sup>45</sup>Huebner, Life Insurance, p. 159.

<sup>46</sup>Ibid.

<sup>47</sup>Henry W. DuBois, "Offers Ammunition Against Detractors of Life Insurance," The National Underwriter, No. 9 (Feb. 26, 1966), p. 3.

unique product to own because the firm can change its mind about the need to be satisfied and can be accommodated without buying another policy, unless it is an added need.

With the objectives, objections, and tool identified, a discussion of the values of keyman insurance related to the risks of loss will be attempted in Chapter V.

## CHAPTER V

### USES AND VALUES OF KEYMAN INSURANCE

#### I. THE KEYMAN DIES (AN APPROACH)

As has been pointed out, death does not appear to be a motivating argument for buying keyman insurance, even though the probability of occurrence is higher than for fire or burglary (See pages 13-14).

For example, five out of every one hundred buildings burn with an average loss of only ten per cent. Ninety-five out of one hundred buildings never burn.<sup>48</sup> Thus, the probability of building loss caused by fires is five per cent. The probability of a keyman's loss from death (age 35) is 27.5% (See page 11)--five times greater.

Businessmen accept without question the wisdom of insuring their physical assets against loss from fire and other hazards. Very few would construct a building or bring in a large inventory of stock into a warehouse without the security of knowing that it was protected from some unfortunate fire or other disaster that could completely wipe out the business. Yet, protecting the firm against the loss of its keyman may be far more vital and the probability of real loss is considerably greater.

Assuming the statistics cited are valid and that the firm carries

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<sup>48</sup> Statistical averages figured from Journal of Insurance Information (New York: Insurance Information Institute, 1965).

keyman life insurance, this section will discuss the value i.e., the tax-free money, which accrues to the firm when the keyman dies.

The use of money derived from insurance planning is at the discretion of the firm, but this discussion assumes the funds are used to replace the keyman and continue "normal" profits.

In the following example, the firm valued the replacement cost and "normal" profits at \$100,000 and insured the keyman at age forty.

Using these assumptions, Figure 2 illustrates the value accruing to the firm at the keyman's age of fifty (the day he died). The firm received \$109,960 (the face amount plus paid-up additions).<sup>49</sup> This was a tax-free gain to the firm's surplus of \$82,880 (face amount less gross premiums). Realistically then, the cumulative reduction in the firm's surplus account at the end of this ten-year period was only \$3,080 (gross premiums of \$27,080 less the cash value of the contract--\$24,000). By the end of the twentieth year, the total cash value of the policy would have exceeded the gross premiums paid.

In this case, insurance guaranteed that time was provided for in the planning--time to create the reserve necessary and time to fully train the needed replacement because the \$100,000 took training into account. It meant the firm could plan a realistic reserve policy of, for instance, twenty years to set up their replacement program. Without the insurance, knowledge of the exact year of death would have been

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<sup>49</sup>"... the dividend is used to buy for the policyholder additional paid-up insurance of the same kind as the policy he owns." See Arthur Mason, Jr. "Dividends and Their Use." Life and Health Insurance Handbook, Davis W. Gregg, editor, second edition, Homewood, Ill. Richard D. Irwin, Inc., 1964). p. 170.

Death At End of Year	Firm Would Receive (Face + Paid-up Additions) <sup>a</sup>	Gross Premiums Paid by Firm	Tax-Free Gain To Firm Surplus (Face-Gross Premiums)	Asset Value of Policy-Credit to Surplus (Guaranteed Cash Values)	Cumulative Reduction in Firm Surplus Net Debit to Surplus
1	\$100,000	\$ 2,708	\$97,292	\$ 100	\$ 2,608
5 (Age 45)	102,990	13,540	89,450	10,490	3,050
10 (Age 50)	109,960	27,080	82,880	24,000	3,080
15 (Age 55)	119,310	40,620	78,690	40,280	340
20 (Age 60)	130,010	54,160	75,850	58,880	+4,720
25 (Age 65)	140,860	67,700	73,160	78,280	+10,580

<sup>a</sup>Dividends illustrated are based on 1964 scale--not guaranteed.

FIGURE 2

\$100,000 ORDINARY LIFE KEYMAN POLICY  
ISSUED AT AGE FORTY<sup>50</sup>

<sup>50</sup>Advanced Underwriting Department of New York Life Insurance Co., "Key-man Life Insurance," Business Insurance and Estate Problems (New York: New York Life Insurance Co., Vol. 63-6 (June 1963), p. 8.

necessary.

Looking at the same example another way, assume the firm had not used life insurance, but had decided to set up a reserve to equal \$100,000 in twenty years. Using net present value tables, the firm would have to set aside \$3,020 a year (after taxes) at five per cent.<sup>51</sup> In the tenth year (the year of death), there would be \$38,000 available to replace the keyman, \$62,000 short of the necessary \$100,000.<sup>52</sup> If the firm borrows the additional funds, interest must be added to determine the total cost of the replacement.

There is also the possibility of not being able to borrow the additional funds due to the keyman's loss. The firm might then issue additional stock or float a bond issue to raise the necessary funds. In either case, an intangible which is often overlooked is what happens to the value of and faith in corporate stocks and bonds when an indebtedness is incurred, not adding to profit but trying to replace lost profit--the profit the keyman accounted for. The loss of a keyman may very well cause the market value to decrease.

The death of a keyman and the resulting effects imply a study of what might happen to the entire capital structure of a firm. In addition to the lost profit caused by his death, such questions as, "What effect will his death have on borrowing power? on issuance of stocks and

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<sup>51</sup>Earnings of over five per cent may be possible but assuming the need for liquidity, the percentage is realistic.

<sup>52</sup>Joseph F. Bradley, Administrative Financial Management (New York: Holt, Rinehart & Winston, 1964), pp. 224-225. Value can be figured from any present value table showing the value of \$1,000 per year for N years at R per cent.

bonds? on credit extended by suppliers?" must be considered.

Admittedly, study of this magnitude is not an easy task because once again it involves much subjective evaluation and must be revised continuously. But, it is this type of analysis which proves the importance of providing for the capital necessary at the moment of death. Keyman life insurance will provide this guarantee.

## II. LIVING VALUES

Up to this point our concern has been centered around the loss of a keyman, its effect on the business, and the values derived by the business as a result of death. However, the other keyman risk possibilities, i.e., disability, quitting, and mental obsolescence, could and probably do have a higher probability of occurrence than death alone. It is to these possibilities that this section is devoted.

### Disability and Keyman Insurance

There are two provisions available to most life contracts which must now be discussed. The first, Waiver of Premium (as written in most policies), refers to a disability or illness which leaves the insured unable to work. The following is an excerpt from an actual life policy:

Upon receipt by the company of due proof that the insured is totally disabled as defined . . . , the company will waive the payment of each premium falling due after the commencement of such total disability and during its uninterrupted continuance subject to the terms and conditions of these waiver of premium benefit provisions.<sup>53</sup>

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<sup>53</sup>This quote was taken from a Whole Life policy issued by the New York Life Insurance Company in April, 1960, page 10. However, any policy reads essentially the same.

The firm in effect has lost the services of its keyman without the event of death and should attempt to protect itself against this further loss. The policy with Waiver of Premium benefit carries itself for the duration of the disability. It continues to grow in terms of cash value and the death benefit is still valid. But the firm is without the services of the disabled keyman and may be forced to use the "cash values" (if sufficient) or some other contingency fund to keep working capital or production at normal profit-making levels.

The other benefit has to do with the keyman's income which now becomes an expense to the business for which it is receiving no benefit.

Generally, a firm has an obligation to pay its employees during sickness or disability as a part of its original hiring contract, at least for a minimum period of time. If this disability continues for any length of time, the firm may find it necessary to hire a replacement and thus be paying two incomes for the value received from one. The addition of a "disability income rider" to a keyman policy becomes an ideal way to avoid most of this additional expense and may be purchased for given periods of time.<sup>54</sup> The keyman is paid by the life insurance company and the replacement is paid by the business. Even though this replacement may not be immediately effective, the loss should be reduced.

Waiver of Premium and Disability Income become the two provisions

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<sup>54</sup> Generally, insurance companies will only insure personal income up to fifty or sixty per cent of earned income. See Charles A. Ormsby, "Life Insurance Riders--Disability and Accidental Death Insurance." Life and Health Insurance Handbook, p. 267.



that provide some protection against the contingency of disability.

One other possibility exists for providing the income stated above, but should be considered very carefully. The use of Waiver of Premium will carry the policy. The firm could use the cash and loan values of the policy to pay the keyman for a limited period of time if the firm is short of funds. This, of course, as with any other payment of income, carries with it a tax deduction which may be substantial depending upon the firm's tax bracket. This possibility would avoid the expense of the disability income rider but could prove more expensive should the disability last beyond the cash available. One other point to consider is that the firm may wish to replace the depletion of the cash value at a later date. If the money is on a loan status, the interest is, of course, deductible, but replacement will be an additional expense to the company.

#### Incentives and Keyman Insurance

A very expensive business problem is found in the area of fringe benefits. Executives' cash incomes often have been sharply increased by tax-sheltered rewards, most notably by annuities, deferred pay and stock options, and by an extraordinary collection of tax-free fringe benefits.<sup>55</sup> Since keeping keymen from leaving is another risk faced by management, another life value which may be solved by the proper use of keyman insurance is evidenced. The small firm often finds itself in

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<sup>55</sup>Perrin Stryker, "The Pirates of Management," in Huxley Madheim, et al., (editors), Readings in Organization and Management, (New York: Holt, Rinehart & Winston, 1963), pp. 273-284.

competition with larger corporations to provide the keyman with incentives which will attract him, hold him, and reward him for service, thus insuring success for the firm. Two important benefits are in the area of compensation in the event of disability (which has already been discussed), and in the area of retirement income or deferred compensation.<sup>56</sup>

To quote Sam Shulsky:

There is one basic form of retirement financing which overcomes the problem of outliving your financial resources . . . . That is, of course, the life insurance annuity--a contract which guarantees you a fixed income for life, an income which you will never outlive.

No other income contract can promise you that and few other investments approach the safety of the life insurance company contract.<sup>57</sup>

Referring back to Figure 2 on page 39, the cash value at age sixty-five is \$78,280 based on 1964 Settlement Option figures; the keyman could be paid \$6.20 per month per thousand, or \$5,826 per year for life. Shulsky goes on to say:

Of course, the principal is extinguished with the lives of the investors. Even so it is a high yield when one considers its high safety. And to add to that safety, be sure to discuss annuities only with expert representatives of life insurance companies licensed to do business in your State.<sup>58</sup>

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<sup>56</sup>Deferred compensation is "any postponed payment for services rendered." See Charles B. McCaffrey, "Deferred Compensation and Stock Option Plans," Life and Health Insurance Handbook, p. 602.

<sup>57</sup>Sam Shulsky, "Wise Retirement--Life Insurance Annuity Gives Fixed Income," in an article reprinted by permission from the New York Journal American, 1960

<sup>58</sup>Ibid. Annuity "yields" figured on Single Premium Annuities for age sixty-five vary between six per cent and eight per cent. See The Unique Manual (New York: The National Underwriter Company 1964), pp. 687-700.

Deferred compensation is especially attractive to keymen who are already earning high or "comfortable" incomes. They can increase their overall net earnings by having pay increases deferred until they are in a lower tax bracket, i.e., when they retire. The advantage to the firm is usually an agreement whereby the benefits will not be paid to the keyman if he leaves the firm. (The agreement sometimes includes certain provisions for consultation on business matters even after the keyman's retirement.) If, as has been suggested, the keyman should quit, the firm at least has the cash value available to pay some of the cost involved in gaining a replacement, just as with any contingency reserve. Thus, in addition to the other values, the business can compete with larger companies and avoid losing keymen on the basis of fringe benefits alone.

These incentives will not entirely eliminate the risk of the keyman quitting, but are definite values which should force him to "think twice" about it.

#### Obsolescence and Keyman Insurance

The keyman insurance plan appears to have little value in solving the problem of mental obsolescence. It could be argued that if obsolescence did not occur for fifteen or twenty years there would be substantial cash value with which to re-train or further educate the obsolete keyman. Instead, timely provision for other methods or tools such as night school, correspondence courses, industry manuals, and government aids may prevent obsolescence.

Up to this point, keyman insurance has been related to indemnifying the four risks associated with the keyman's loss. However, there

are other values which accrue to the firm as a result of keyman insurance ownership. These values serve to increase the effectiveness of insurance as a risk management tool.

#### Keyman Insurance as a Reserve

Turning for a moment to a contingency reserve of which this insurance could be a part, Gilbert indicates that "the reserve which a company marks for contingencies must have (1) flexibility, (2) safety, (3) liquidity, and (4) profitability."<sup>59</sup>

Flexibility has already been indicated by some of the death values which life insurance provides and is being further explored in this chapter to see just how many ways these benefits can be used.

Safety is claimed by the insurance industry which suffered almost no losses in terms of (1) companies, and (2) financial stability during the "Great Depression" which saw many substantial financial organizations fail and never recover.<sup>60</sup>

Liquidity is accounted for by the cash and loan values which are available at any time with no chance of loss due to market conditions.

Is it profitable to use insurance as a part of a firm's reserve? The answer to this question must be decided by each firm individually. It is hoped the conclusions of this thesis may help to answer the question.

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<sup>59</sup>E. Albert Gilbert, Insurance and your Security (New York: Rinehart and Company, Inc., 1948), p. 9.

<sup>60</sup>R. Carlyle Buley, The American Life Convention, 1906-1952 (Vol. II of A Study in the History of Life Insurance, 2 vols., New York: Appleton-Century-Crofts, Inc., 1953), pp. 681-877.

With regard to an already established firm, many a business owner will indicate how the cash or loan values of life insurance saved his business when money was needed to meet current obligations.<sup>61</sup> Especially in times of tight money, the loaning privilege attached to the policy has been used as temporary relief until such time as money loosened again.

A contingency reserve invested other than in insurance could be used for this purpose but would then be risking the loss of the keyman through death. In addition, money in a contingency reserve is usually invested in some manner. There may be a loss incurred if money must be withdrawn at an inopportune time. On the other hand, the use of cash value would only reduce the face value of the policy by the amount borrowed and thus retain the value of the contingency of death. Also, the market value of life insurance, regardless of a tight money situation, is immaterial when considering life insurance cash values. The money needed can be withdrawn from the policy or borrowed. It is normally borrowed to keep the insurance value intact. The interest charged by most life insurance companies is five per cent,<sup>62</sup> but this will net out at something less depending upon the firm's tax bracket. One other point: in a period of tight money, using funds already invested or borrowing involves a very high degree of precision in making sure of get-

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<sup>61</sup> Stewart Anderson, "Commercial Life Insurance," published in Dunham, H.P., The Business of Insurance (New York: Ronald Press Co., 1912) Vol. I, pp. 387-390.

<sup>62</sup> See any company's Loan Section in The Unique Manual and Little Gem Life Chart (New York: The National Underwriter Company, 1965).

ting the right amount of money. To borrow or cash in too little means that at some future time one may again have to tap some source of funds, again taking the chance of loss. Life insurance cash values may be borrowed in any amount at any time provided the cash value available is not exceeded.

Tight money periods also cause commercial interest rates to go up while most insurance company interest rates are fixed by the contract. This value was discussed in a recent Business Week article:

. . . life companies stand ready to lend policyholders the cash value of their policies at [usually] 5% annual interest.  
. . . .

The 5% rate, a bargain compared to the 9% to 12% being charged for personal loans at many commercial banks, has prompted a sharp increase in policy loans.<sup>63</sup>

Relating this discussion to business needs, the loss of the "Investment Tax Credit" in the fall of 1966 probably caused many firms to either find cheaper sources of money or postpone capital spending.

Borrowing from life insurance policies has an additional feature which is often overlooked or, at least, the value placed upon it has not been fully expressed. The repayment of the principal is up to the borrower as only the interest is required.<sup>64</sup> To state this more clearly, the life insurance company invests its money, whether it be invested in blue chip stocks or loaned to a policy holder, the insurance company is making its profit. Thus, the interest paid by the policyholder is all the life insurance company is concerned with as the insured is bor-

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<sup>63</sup>"Borrowers Turn to Odd Spots." Business Week, No. 1936 (Oct. 8, 1966), pp. 65-66.

<sup>64</sup>See any company's Loan Section in The Unique Manual, and Little

rowing his own money. If the policyowner wishes to wait one year, two years, or ten years to pay the principal, this can be arranged. This additional feature could be of importance in a period of short money where the firm may not find itself in a position to repay the loan at a specified time.

Figure 3 indicates the primary reasons for requesting loans on all cash-value life insurance. Although figures are not available on just "business life insurance," the fact that twenty-one per cent of all loans were used for business purposes points out the need for such a fund. It also indicates the extent to which cash values are being used (probably only in the case of extreme emergency).

One final point: funds borrowed from life companies are between the life company and the policyowner. No one else is involved.<sup>65</sup> In a period of tight money, a small firm struggling for existence may not want to disclose its financial position in fear of unduly tainting its credit picture.

#### Credit Values and Keyman Insurance

It has been said that "nobody just jumps into a business without any borrowed funds,"<sup>66</sup> and it is at this point that the living values of life insurance begin working for the business.

Bankers and other creditors always regard the cash values of the

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#### Gen Life Chart.

<sup>65</sup> Anderson, op. cit., pp. 387-389.

<sup>66</sup> Henry W. DuBois. "Offers Ammunition Against Detractors of Life Insurance," The National Underwriter, No. 9 (Feb. 26, 1966), p. 2.

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Reason for Loan	Percentage of Responses
1. Funds needed in business	21.0%
2. Home or home improvement	15.0
3. Pay off indebtedness (other than bank loan)	11.7
4. Reduced income from employment	7.0
5. Taxes	6.6
6. Unusual Medical expenses	5.8
7. Purchase automobile	5.3
8. Repay bank loan	3.7
9. Investment: Stocks	3.7
Real Estate	3.2
10. Children's education	2.2
11. Other	14.7
	<hr/>
	100.0%

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Source: "Policy Loan and Surrender Survey," an unpublished report to Laflin C. Jones, Director of Insurance Services and Planning, by Charles M. Boehrer, First Quarter 1958, p. 5.

FIGURE 2

PRIMARY REASONS FOR REQUESTING POLICY LOANS<sup>6-</sup>

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<sup>6-</sup> Reprinted by Glenn I. Wood, "Life Insurance Policy Loans: The Emergency Fund Concept," The Journal of Risk and Insurance, Vol. XXXI, No. 3, (September, 1964), p. 416.



businessman's policies as an additional asset justifying extension of credit.<sup>68</sup> This asset becomes all the more important when the extension of credit is based on the creditor's confidence in a keyman's ability to guide a successful business and extremely important where little inventory or property is available for collateral purposes. A firm just starting out indicates through financial statements and keyman insurance their ability to succeed and to cover losses in the event of adverse contingencies. The creditor is assured that loss of a keyman whose ability becomes the basis for the loan has been planned for so that money will be available to either carry on the enterprise or at least guarantee repayment of credit extended. Thus, the enterprise is usually allowed to borrow the needed funds and is quite often favored with a lower interest rate than the firm that did not plan against risk. Even the Small Business Administration which is set up for lending and aiding small firms should be favorably impressed with risk planning accomplished prior to application for loan.

Continuing with the credit picture, the firm may now desire credit terms from suppliers. The suppliers, having had no previous experience with the firm, may be reluctant. The suppliers therefore contact the bank or lending agency and find credit well-established and backed up. With this information the suppliers then extend favorable terms which do not drain the firm of its limited working capital at the beginning. Thus, while the firm is short of capital it is able to function because credit is approved through the efficient use of busi-

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<sup>68</sup> Anderson, op. cit. pp. 387-390.

ness life insurance.

The credit picture expressed is one of supposition, but is a very real business situation.<sup>69</sup> To place a dollar value on the extension of favorable credit terms is difficult and again must be studied by each firm to determine if it adds to the success of the business. A talk with any lending official concerning keyman insurance should prove valuable to any business at its inception.

One final point about living values in relation to cost. If the firm decides to self-insure or set up a contingency reserve or use some other method, the expense must also include the cost of risk management plus the economic cost of the loss. Russell B. Gallager concludes:

If the outside agent, broker, or insurance company can take over part of the work, there is a savings in cost that can more than offset differences in premium charges . . . .<sup>70</sup>

In summary, keyman insurance is best used against the risk of death. At death money is available to replace the keyman and attempt to continue "normal" profits. The risk of disability is partially covered by insurance. If it is a short period of disability, perhaps the keyman policy with an income rider will be sufficient, but a long period of disability may mean a substantial reduction in profits, calling for an examination of other "tools."

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<sup>69</sup>In two years as Secretary-Manager of the National Association of Credit Men in Billings, Montana, the author observed the picture presented as one of the main methods used by credit managers in the extension of credit to new firms.

<sup>70</sup>Russell B. Gallager, "Risk Management: New Phase of Cost Control," Harvard Business Review, Vol. XXXV, No. 5 (September-October, 1956), p. 84.

The incentive values mentioned can certainly reduce the risk of the keyman quitting, but there are other methods of providing reasons for the keyman to stay where he is. Location, climate, time off, life goals, prestige, etc., will all play a part in determining incentives. Even then, it is doubtful that the risk of the keyman quitting can be eliminated.

The risk of mental obsolescence is not covered by keyman insurance and, although not too important in many industries today, should be studied in anticipation of change caused by future innovations.

Other keyman insurance values in the areas of credit, flexibility of uses, borrowing, and liquidity have been mentioned.

Finally, each firm must decide, after careful analysis, what benefit any or all of these values add to the success of the firm. As with any systematic approach, the firm must attempt to be as precise as possible in applying a dollar value to the benefits as well as the risks. Only when this is done can the firm make the proper comparison to judge the value of any risk-management tool.

## CHAPTER VI

### CONCLUSIONS

The problems of risk management are not easy to solve due to the variety and complexity of risks which the firm faces. A general problem, such as keyman loss must be further sub-divided into specific risks.

In discussing the risks associated with the keyman problem, the major difficulties stem from the amount of intuitive valuation each firm must make before alternative solutions can be evaluated and compared. Recognition of the risks a firm faces magnifies the necessity of searching for the keyman's identity. In the thesis, major keyman risks have been outlined and explained, but in addition, there is a need for statistics with which to determine the probability of each risk as it relates to the total probability of loss. Such figures would aid firms in determining a basis for priority when searching for solutions.

The identity of keymen presents little difficulty to many small firms, but must be periodically reviewed to insure that both tangible and intangible sources of profit are traced. However, discovering a keyman does not indicate the magnitude of the problem; this can only be determined by valuing his contribution to profit and the cost of replacing him.

Problems multiply when keyman valuation is attempted as no one formula or criterion will fit all firms. Placing a dollar value on each potential loss area is improbable due to differences in risk evaluation.

but each risk area must be considered, nevertheless. The apparent stumbling block is that the loss must have occurred before true values can be estimated. A possible solution to the valuation question is Casey's discussion of "estimated contribution to profits" (see page 24). However, such a solution avoids some potentially important and costly loss effects, i.e., keyman replacement costs. Thus, present solutions to the valuation problem leave much to be desired, and it is at this point that fact-conscious business firms may dismiss or put off the problem until a more positive approach is offered. A new system must include provisions for valuing the importance of uninterrupted profits and for replacing the lost man if the disruption caused by his loss is to be minimized.

The solution to the valuation problem is then dependent upon individual gambling instincts. That is, how much of the probable loss is the firm either capable or willing to accept.

Keyman insurance does solve part of the problem, but has certain shortcomings with regard to the total problem. Thus, if the firm wishes a higher degree of protection, other tools must be used with insurance.

Insurance is the one solution which eliminates the need for knowing the exact time a death loss may take place. Yet, because of its intangible nature, its inability to show immediate profitable value, insurance use is often neglected. However, credit and reserve values do have an indirect effect on profits as pointed out. It is quite simple to prove the value insurance can provide at death because by assuming death, illustrations of tax advantages, replacement funds, and the like, can be factually presented.

But, there always remains the question, "What if the keyman does not die, quit, become disabled, or become mentally obsolete?" The answer has been attempted in the section, "Living Values," but once again the subjective consideration of such values as credit, incentives, and disability is difficult. In order to make realistic comparisons of alternative solutions, absolute dollar valuations are needed. These dollar valuations could then be used to determine the percent of total loss covered. If the reduction in risks is sufficient (dependent on each firm's ability to withstand a loss), a proper risk-management tool has been found.

The vital needs are for firms (and insurance agents) to be explicit about the risks they are attempting to indemnify; to be as precise as possible in valuing the potential loss; and, finally, to be more concerned with long-range profit continuance rather than with short-run premium costs and minor tax deductions.

Keyman insurance does only a partial job of protecting the risks of disability, mental obsolescence, and quitting; nevertheless, the combined reduction in loss related to the total problem rates life insurance high as a risk-management tool designed for perpetuating business profits.

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