CHAPTER ONE

THE PROBLEM OF DIVERSIFICATION
A HISTORICAL RESUME

All growthmen either through their sophisticated mathematical Euclidean techniques or by narrating the exciting development tales of affluent societies emphasize that the economic vitality, social veneration and political sovereignty of a nation largely depend upon its tempo of industrialization. This in turn depends not only upon the rate at which the economic resources are mobilized towards agglutination of industrial activity, but also upon how wide-spread or diversified is the span of this activity.

The advocates of this premise while taking a leaf from economic history remind the business magnates and the planners, that due to the application of the law of diminishing returns, it would always be dangerous to assume that things will go on as before and that a perpetual and continuous application of the same means for improvement may not only fail to give better results indefinitely, but may indeed reverse the trend.

To mitigate the impact of diminishing returns, the forces of science and technology have been marching with
long strides towards unknown frontiers of innovation and in consequence the phenomenon of industrial diversification has become glaringly noticeable. In fact, the history of industrial growth substantiates the fact that after a certain point, specialization itself breeds diversity. It does so by attracting industries subsidiary to the main industry and later on their making of the products for other industries. Historically diversification is a stage in industrial evolution and a characteristic feature of the society which is either fully industrialized or is in the process of getting so.¹

According to Stanley S. Miller at this stage "the economic system gains sophistication, it takes on a tempo of faster change in market demand and hastens technological obsolescence. The cost of administration, manufacture and distribution increases and this, along with the previous factor, calls for continuous commitments to new products.

¹This stage in most of the present industrialized countries was reached either by the end of the last century or by the outbreak of the First World War. Whereas in India "Some of the important new industries that started production for the first time during World War II were (a) ferro-alloys like ferro-silicon and ferro-manganese; (b) non-ferrous metals and metal-fabricating industries like copper, copper sheets, wire and cables; (c) mechanical industries like diesel engines, pumps, bicycles, sewing machines, machine tools and cutting tools; (d) a few items of textile, tea and oil pressing machinery and (e) chemicals like caustic soda, chlorine, superphosphate, photographic chemicals and bichromates". Report of the Indian Fiscal Commission, 1949-50, Vol. I, p. 22."
At the same time sources of new ideas are active, research laboratories, public and private, uncover new material and products and stimulate new market demands.* Lord Halsbury also rightly observes that "a great part of the output today is represented by devices, inventions and production techniques which were unknown fifty years ago. There were then virtually no mass-produced automobiles, or synthetic fibres; no aeroplanes; no radio or television; no petroleum, chemicals or plastics industry; no antibiotics or chemotherapeutics; no motion picture industry and none of the subordinate industries which support these developments."  
This spurt in industrial activity has resulted in the formation of a large number of new companies and also in the expansion of a number of existing companies belonging to medium or large-sized groups. Since in any typical manufacturing industry, production can be attributed to three different types of establishments namely (1) a single unit (owned by a company which operates no other business establishment); (2) a multi-unit-single industry (owned by a company which operates two or more establishments in the

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same industry); and (3) a multi-unit-multi-industry (owned by a company which operates two or more establishments in two or more industries), there is some evidence of recent acceleration in the third type of establishments. Because of this tendency the old rule "let the cobbler stick to his last" is losing power and the phenomenon of company diversification is assuming striking dimensions and has now become not only a distinctive characteristic of an industrial society but also a catchword of to-day's business and a managerial imperative. The management philosophy of product diversification, that is, operating a company so that its business and profits come from a number of sources (usually from diverse products that differ in market or production technology) has come to exercise such a spell that to declare that a firm's product policy is one of diversification is almost automatically to proclaim a dynamic quality of its management. Because of this there are more noises and gestures about it and it is elevated to a blessed terminology in industrial economics.

A NEGLECTED FIELD

Due to the prominence of diversification in the practical business, a rising wave of interest in the subject is visible among the business management scientists. But

4Numerous articles with titles "Hard for Business to Base Growth in a Single Product"; "Diversification Quinches Growth"; "Diversification — Is it always the answer?"
on the contrary, the subject of diversification or an analysis of a multi-product firm, a firm of concrete reality rather than of abstruse imagination, has not become the cynosure of economist's eye, as it has lain in virtual neglect in his literature.

The obvious reasons for the failure of a parallel resurgent interest among economists may be stated as below:

First, in the theory of value and output the firm is usually supposed to produce a single homogeneous product with a single plant. "The reasons ... are to be found in the historical origin of theory, and partly in the simplicity of theoretical analysis when it is confined to single product output. Determination of the costs of individual products in a multiple-product company is both conceptually and empirically difficult. The neglect of these problems may also be due to the notion that management views each product as a separate business activity with the characteristics of

"How Diversification pays"; "What New Products Mean to Companies"; "Growth, Longer Life, Bigger Profits"; "New Products Are Key to Future Growth"; "Why and How to Diversify"; "Product Strategy and Management"; "Strategies for Diversification" are consuming a chunk of printers' ink in business management journals.

5 "Of all the outstanding characteristics of business firms perhaps the most inadequately treated in economic analysis is the diversification of their activities, sometimes called 'spreading of production' or 'integration', which seems to accompany their growth. E.T. Penrose, The Theory of the Growth of the Firm. Oxford: Basil Blackwell, (1959), p. 104.
a single product firm, but this approach has little theoretical, and no practical support."

Second, the neglect is due to the difficulty in determining and classifying the exact conditions and motives for diversification moves because of their varied nature. Companies diversify to utilise waste, by-products or excess productive capacity; to compensate for technological obsolescence; to offset a vanishing market; to distribute risks by serving several markets; to maintain an assured source of supply; to re-invest earnings; to meet the conveniences of diversified dealers, and so forth. In the absence of exact knowledge about the conditions and motives for diversification, it is felt that no scientific predictions about the future development of the phenomenon can be made on the basis of past experience.

Third, there is no unanimous view about the aims, ambitions and aspirations of businessmen as with the development of corporate business (which segregates ownership and control of a business entity); business motivations land into a complex matrix, sometimes expressed in a plethora

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7 There has recently been a growing interest in defining corporate goals. Often stated economic type objective growth, expressed in terms of sales, assets, employees,
of subjective values like happiness, good and quiet life, independence, and sometimes in other variable like size, product line, market share, production methods, and employees relations. Businessmen in fact rebut the economist's assumptions that they are chiefly concerned with the maximization of the earnings of their shareholders. They discuss life in terms of some wider social interests like power, prestige, public approval and inventiveness. This upsets the economist in evaluating the economic potentialities of a diversification move because, except profit, power and prestige are exogeneous variables in his model and even "the income of a businessman is no longer a measure of his achievement; it has become a datum of secondary interest."8

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Fourth, until recently the fatal weakness of economic approaches has been that these have pushed the analysis of a firm along the path of perfect knowledge and certainty which has hardly any point of contact with the practical and hard-headed world of reality. In a dynamic set-up, instead of complete and perfect knowledge, there are larger numbers of unexpected events such as the vacillating public policies and actions, hazards of weather, whims of fashion, and political happenings abroad. Diversification, being a hedge against uncertainties and vicissitudes of price, production, technology or institutional relationships, has been relegated to vague foot-notes and appendices.

THE INDIAN SCENE

In India the seeds of diversification were sown by a number of managing agency houses, as most of them fostered a number of industries, more often than not quite different from one another. The history of some managing agencies reveals that "they British managing agencies were first engaged in the general trading business, but soon turned their attention to other lines of activity. They found a country with vast, underdeveloped resources ... a large consuming population and a plentiful labour supply ... lacking in industrial leaders .... Being pioneers they realised such profits in each line of business that they could afford to make mistakes without burning their fingers .... From one
industry they turned to another, not only because the experience gained in the one was equally valuable in the other ..., but also because each line of business was found in another. Thus managing agents of jute mills started colliery concerns and found that the jute mills were good customers for their coal. Then again, when some of them floated boating and inland steamer companies, these latter were able to get their own jute mills, colliery companies and tea estates to send their goods by their line of steamers. It was thus a great thing for them to know that they had a market which was controlled by themselves, and thus one line of activity naturally led to another. That is why in India managing agency firms have neither specialized in one or two industries nor developed a vertical form of organization. They have used their knowledge in developing quite a miscellaneous range of enterprises, including jute mills, tea gardens, flour mills, coal companies, shipping companies and insurance companies. The main reason for such growth was that the field open to them was large and had to be shared only among a limited number of firms.\footnote{P.S. Lokanathan, \textit{Industrial Organisation in India}, London: George Allen and Unwin Ltd., (1935), pp. 15-16.}

While diversification of industry by a managing agency house has been common until recently, diversification of manufacture by a single firm has been usual and it came
to flower in 1930, as a cushion against the adverse winds of depression which shook public confidence and collapsed the corporate pyramid based upon one activity or one market. The second cluster of development to encourage product diversity was the arrival and the end of the Second World War. The heterogeneous military needs coupled with import blockades provided different combinations of opportunities for diversification which never before were available. Though the third burst of diversification activity came in 1961 with the onset of the Third Five Year Plan (as this plan period is characterised by annual rates of product additions substantially above previous levels), yet the diversification movement, due to some public policies, remained active immediately after the political independence of the country in 1947.

In April, 1948, the Government of India outlined their future industrial policy and proposed to divide the industries into three spheres (1) those that should be exclusively the monopoly of the state, (2) those over which the Government would exercise control, and (3) those that are left to private enterprise and initiative. In view of this, business enterprises, operating either in the forbidden areas or in the controlled fields, contemplated stepping into the areas where these could have a free penetration and business autonomy for their growth and development.

Similarly, the free currency of the term 'nationalization'
created uncertainty about public economic policies and cautioned business enterprises in developing a wide spectrum of activities; so that in the event of any activity taken by the Government in the future, these enterprises could have some other activities to bank on for smooth sailing.

Again, the recent governmental policy to smash the industrial empires and concentration of economic power, has played a vital role in fostering diversification by industrial units as against diversification by managing agencies. This is so, as the industrial policy (in order to promote automistic tendencies by preventing the development of monopolistic structure and lowering the relative share of the total market of an industry accruing to large companies) encourages the establishment and growth of new entrepreneurs and if some industrial activities are declared as 'forbidden areas' for large units, they have to put capital funds and managerial talents to the maximum profitable use; they must either collapse or diversify into new lines.

Diversification is also accelerated by governmental policy in another way. When an existing company is forbidden, directly or indirectly, to expand the capacity of its traditional items of production, another company engaged in another line of production has a temptation to move into the traditional line of production of the former company. Thus, if existing cement companies are not permitted to
expand their capacities to the extent necessitated by future demand, there is a temptation for the units in other industries, like jute, paper and engineering, to diversify into the production of cement.

Apart from the public policy to control the economic concentration and monopolistic tendencies, a price control policy of the government also offers a powerful incentive to the units so controlled to diversify into those fields where they will be, at least for some time, free from the operation of price controls.

Further, the restriction imposed on managing agencies on controlling more than 10 companies under Section 332 of the Indian Companies Act (Revised 1961) is also an important factor leading to the diversification of activities of individual companies. Because of this restriction, leading managing agencies have to act as Secretaries and Treasurers of new companies formed to undertake new lines or alternatively they are tempted to annex new contemplated lines to one of their existing companies. Similarly, the present policy which terminates the Managing Agency System in toto and intends to put a last nail in its coffin by 1970, also adds another spur to the current diversification movement.

Diversification moves have also been encouraged by the policy of linking imports (in the face of the stringent foreign exchange position) of basic raw materials, plants and equipments, or know-how as required by a company with
its export earnings. This has made the companies, particularly those which are not operating in the foreign markets, develop either their import substitutes by integrating the manufacture of raw materials or machinery or both with their principal activity or take up new lines of activities which promise export potentialities and foreign exchange earnings.

Another important cause of diversification is found in the income tax. In a system where there is a combination of normal and sur-taxes upon corporate earnings and at the same time rates on individual incomes are steeply graduated, there is a tendency for the corporations to transmit the profits into capital gains upon corporate earnings. Similarly another tax factor which has induced diversification is the possibility of deductions for capital losses from the taxable income, and a good number of companies have absorbed a considerable expenditure for developing new products against their current gross receipt.

Moreover, in India, the shortage of finance, entrepreneurial and managerial ability made it the responsibility of a few successful industrialists who had won public faith and had amassed wealth, to develop all the branches of industry. Since these industrialists had the opportunities of doing so, they have made diversification an important feature of the industrial structure. The occasional
liberalisation of industrial licensing rules\textsuperscript{10} to allow the existing industrial units to diversify production up to a given per cent of their total production, has also given a great fillip to the current diversification movement.

In the foregoing survey an attempt has been made to discover the origins of diversification and it would seem that voluntary diversification has been undertaken to reduce costs and create additional earnings; whereas involuntary\textsuperscript{11} diversification has been caused by the changes wrought by war, public policies to avoid the entanglement of the firms with the Company Law Department, differential tax structure and an unflinching desire of Indian industrialists to achieve self-sufficiency in the matters of industrial

\textsuperscript{10}The Centre (Government) has announced further relaxation of the conditions for diversification of production up to 25 per cent of the output. Not only the units are exempted from the licensing provisions but they get the additional facility of importing raw materials and balancing equipments on a priority basis. When the Government decided to give freedom to industrial units to diversify their products without prior permission, it was stipulated that diversification should not involve any additional foreign exchange. This condition has been relaxed now. The freedom to diversify production was conferred on industries in October 1967 under certain conditions.\textsuperscript{11} Economic Times, Bombay, December 27, 1967.

\textsuperscript{11}Involuntary diversification results from forces beyond the control of corporate management. Indeed, there are causes of diversification which are non-economic in character.\textsuperscript{11} G.E. Hale, "Diversification : Impact of Monopoly Policy Upon Multi-Product Firms", University of Pennsylvania Law Review, (Feb. 1950), p. 336.
development and defence preparedness. Thus current mounting wave of diversification in India cannot be attributed to random causes.

**THE IMPLICATIONS**

Since diversification does not seem to be a transitory phase or a passing fancy but is likely to stay as a permanent feature of the Indian business scene, it becomes imperative to study its implications upon individual business concerns and aggregative economy as a whole.

Though so far no special treatment is given to the subject like consequences of diversification, yet there is some scattered and fragmented literature purporting to tell the complex objectives, and hence consequences underlying the diversification moves.

The probable strong reasons which explain the current widespread interest among business entrepreneurs in diversification moves are:-

1) The institution and outcome of fundamental

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and applied research which furnish immense product opportunities necessary for diversification ventures.

2) Progress and transformation of industrial economy which give rise to many of the needed market opportunities.

3) Flexibility of marketing and administrative costs relative to those of production.

4) Social and institutional pressures from both labour and management for stability and security.

5) Regular general exigency of top management which encourages a strong company to broaden its activities.

These are the basic factors which accelerate the magnitude of diversification but even some of the immediate objectives like eliminating seasonality and/or cyclical fluctuations with the hope of attaining greater stability in organization, earnings and employment, expanding sales in a quest for survival in the competitive struggle, increasing profits and opening new growth channels to attain greater efficiency in the use of company resources, greater economy in marketing operations or greater return from the exploitation of unexpected opportunity and peculiar economic conditions can also be traced to one of the five basic factors cited above.

Keeping in view the foregoing reasons for and the objectives of diversification, its consequences are examined both for the individual enterprise and for the economic system as a whole.
I. Individual Enterprises

The implications of a diversification policy upon an individual enterprise are varied because the forms of diversification as well as its magnitude and direction vary so widely as it often resumes the product relation such as vertical, horizontal, divergent, convergent, diagonal or lateral integration. Similarly, many of the implications depend upon the motives which cause businessmen to diversify. Since there is no unanimously accepted theory of business behaviour and business goals, it becomes far reaching and difficult to examine the implications of diversification. But, however, to systematize the study, the implications are examined from the points of view of growth, security, flexibility and profitability of an enterprise.

a) Growth - For some obvious reasons\textsuperscript{13} a strong

\textsuperscript{13} The important reasons for the company growth are: "Firstly, the bayonet of competition is becoming piercingly sharp which in turn increases the chance of timid, defeatist and excessively introspective businesses being taken over by the bold, progressive and dashing enterprises. Secondly, the forces of science and technology while marching with random strides to unknown frontiers for unfolding earth-shaking discoveries of turning old impossibles into possibles, are constantly dynamising the product, the market and the management. Thirdly, the hectic activities of financial and investment analysts are generating a wide-spread business and this is further making them not only vigilant sentinels about the return on their investments but also about other motives such as status and security which are considered as derivatives of company's image of distant future — symbolising company's policies and attitudes about expansion and progress. Fourthly, when in order to offset disadvantages of ownermanagement business (which are mostly in the form of severe restraint on the scale) and to reap the important
feeling that "you have to grow or die" is widespread in the business community and one of the important means of growing is by pruning out dead products and adding new products. Thus, diversification is one of the important factors which permits continuity of corporate existence and keeps the company away from the dead man's thoughts on the growth path of immortality. In other words even though the product-originally made has become obsolete and unsaleable, the company may continue as prosperous as before. Thus diversification prevents a corporation from declining or dying with its product.

b) **Security** - The great merit of diversification

... economies of scale, the social architects of nineteenth century invented the public joint stock, limited liability company, a complex and somewhat peculiar institution which has brought a 'managerial revolution' in business because the people called managers, executives, directors etc., in whom the control of the business is vested wield considerable power without necessarily holding equity, sharing profits or carrying risks since their functions differ in kind from those of the traditional subordinates. Their motives can be satisfied more or less through monetary rewards but also in good part by other attractions like expanding the business. Fifthly, as now the protagonists of laissez faire are no longer found except on the lunatic fringe, there has been an increasing tendency for the state to interfere in the economic affairs either to pay homage at the altars of Defence or Development or both and this has, most often, made the politician planner chalk out excessively vacillating and inconsistent economic policies which are bringing a thick fog of uncertainty around the business expectations." H.L. Dhingra, "Growth and investment policies in Indian manufacturing firms — An empirical investigation", The Indian Journal of Commerce, Vol. XIX, Part II, No. 67, (April-June, 1966), pp. 100-101.
for an individual enterprise arises mainly from spreading risks for attaining security and stability. This is because through a judicious selection of product lines, a company can avoid sudden epidemics of general bankruptcy which disrupt its chance to participate in the future business game. Thus diversification provides an automatic business risk insurance. Again, since sooner or later every favourite product of a company gets 'water-logged' and 'sinks', the company can keep 'afloat' by not only finding products intimately related to its existing lines but also by seeking absolute new products so as to ensure business security or stability of sales over various periodic phases (seasonal and cyclical) of fluctuations in business activity. In statistical terminology, this is discussed as follows:

Let there be a firm which has limited resources and has invested them in two ventures namely 'A' and 'B'. It is further assumed that $V(A)$ represents the income variance from business activity 'A', $p$ the proportion of total available resources allocated to this activity, $V(B)$ the variance for activity 'B' and $(1-p)$ the proportion of resources invested in this activity. According to the probability theory, the total variance $V(T)$ for any allocation of resources between the two activities is represented by the relation:

$$V(T) = (p)^2 V(A) + (1-p)^2 V(B) + 2p(1-p)\sqrt{V(A)V(B)}$$

The relation states that the income variance for
the combined operation is \((p)^2\) times \(V(A)\), the variance of \('A'\), plus \((1-p)^2\) times \(V(B)\), the variance for activity \(B\), plus the variance in which term \(r\) is the co-efficient of correlation of income for the two activities and

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\sqrt{V(A) \cdot V(B)}
\]

represents the multiplication product of standard deviations of income for the two activities. Now, if the two activities \('A'\) and \('B'\) are positively related such that the incomes from these activities move in exact accord; that is, the peak and trough of one activity coincide with those of the other activity, the total variance of the combined operation is higher than the sum of the individual variances of the activities multiplied by the proportion of their investments because in this situation, the term \(r\) is positive being greater than zero. If the activities are independently related, the term \(r\) becomes zero and the total variance is equal to the sum of individual variances multiplied by the proportion of the funds invested in each activity. Similarly, if the activities are negatively related, that is, the income from or demand for the products fluctuate inversely, the term \(r\) becomes negative and the total variance of income becomes smaller than when the activities are either positively correlated or even independently distributed.

The effect of two investments on each other to reduce or eliminate risk can also be shown graphically as
has been done by Harold Bierman and Seymen Smidt. "Assume that the horizontal axis of the figure measures different possible states of business activity (for example, the percent of work force unemployed or the different possible gross national products for the coming year). The vertical axis measures the mean cash flows of the investment for the year in question. The possible expected cash flows for two investments are plotted in figure I.

![Diagram of present value of cash flows](image1)

**FIGURE - I**

Taken individually both investments have risks. If a new investment A plus B is considered (adding the results of A and B), the figure below shows there is little risk with the joint investment.

![Diagram of present value of cash flows](image2)

**FIGURE - II**
The objective of diversification is to dampen the swings of the total investment portfolio, hopefully eliminating the possibility of zero or negative results.\(^{14}\)

c) **Flexibility** - Besides avoidance of seasonal patterns of business and circumvention of cyclical fluctuations so as to preserve the existing concerns from the grasp of bankruptcy, diversification fosters an intensive industrial research in the company. This continuous programme of industrial research yields an unending stream of products and thereby gives sufficient flexibility to the enterprise for effectively meeting the competitive strategies such as control of substitutes, price cutting, full line forcing of the rival firms. It also makes the firm to realise the windfall benefits from unexpected events and opportunities such as declaration or cession of wars, changes in fashions and whims of consumers, changes in tax structure in the socio-politico-economic system. This is largely due to the fact that in a diversified business a shelter to high cost products is feasible because some of the inefficiently made products are intentionally subsidized by the profitable products.

d) **Profitability** - Most often diversification is

undertaken to mop up the excess capacity of capital, labour and management or for having a productive utilisation of by-products. Since all this aims at avoiding waste, certain efficiencies undoubtedly result from the production of several products. Besides this, there are, of course, instances in which diversification is adopted as a positive policy so as to seek additional profits from the investments rather than negative elimination of waste. This happens when intensive industrial research is adopted as a part of competitive race to have an unending stream of products. With its help the enterprises constantly weave the threads of ingenuity after their own design into a new and original fabric and acquire the kudos of leaving the rival concerns by the road side.

But while considering that diversification decision is a business investment decision and like all investment decisions, this necessarily presents unique and most often very complicated problems dealing not only with the engineering aspects of production technology but also with finance, price policy, competitive position, expectations about future governmental policies, movements of demand, factor prices of the contemplated products. These matters of diversification sometimes call for an enterprise to break completely with the past traditions and to enter into new uncharted paths; this often creates complications for the firm. The experience of many firms with diversification
has not been as gratifying as to some of them. Instead it has been "distraction, diluting the main effort, wasting resources and confusing policies." Under the impact of marketing or product myopia, some of the enterprises have badly burnt their fingers while others have often succumbed to diversification bruises and labour pains. In some cases even much before their engines emitted steam, they had to wind up for reasons other than insufficient capital, paucity of managerial skill and experience. Most of these companies lacked suitable statistics to make a 'go, or no go' decision in their invention processes which are comprised of search, screening, profit analysis, product development, test making and commercialization. In certain cases even the decisions were made while looking into an astrological crystal ball to foretell the course of business conditions.

Thus these results of diversification suggest that the road to diversification may be rocky or smooth, but it is seldom easy and if on this danger-ridden course matters are decided by trial and error, or on a hit and miss basis, there are more chances of error and less of hits.

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16 Case histories incorporated in Chapter IV substantiate these points.
II. The Economy

The consequences of diversification on the economy as a whole are complex and much debated because of the fact that "diversification feeds on two sources internal research and development, and external corporate mergers and acquisitions ... the motives for diversification seem to be logical as well conspiratorial." Though it is difficult to assess the results of diversification, yet, however, following the path paved earlier for examining the implications of diversification upon a firm, the bearings of diversification on the economy as a whole are examined from the points of view of development, stability, elasticity and efficiency of the economic system.

a) Development – In an economy where investors are reluctant to risk their money in new undertakings, unless these are related to some of their traditional industries which are well established and are extensively practiced, diversification by established and successful firms is more conducive in generating, mobilizing and conserving the requisite capital in a given industry, as it entails least disadvantage to diversified concerns over all other potential entrants into the industry. This is so because, in order to exploit, extend or defend the material interests,

17Stanley S. Miller. op. cit., pp. 2-7.
a multi-product firm in the process of its growth over time begins to classify its products as "money making items", "convenience goods" and "loss leaders". It also "reduces its tax liability (tax liability on the income from older activities is offset against the initial losses of the new activities), raises the value of the company's shares, and increases the inducement to invest by holding out prospects of higher dividends, large capital gains and a reduction of the risk involved in depending upon one industry alone."\(^{18}\)

Again, most of the "growth products" industries are characterised by rapid technological obsolescence, and entry into many of these industries requires substantial amounts of productive capital—a fact which frequently constitutes a barrier to newly formed firms. Therefore, as a concomitant of diversifying the existing investment activities by the business firms, capital funds begin to move from less to more rapidly growing segments of the economy, and this in turn makes the economic system progress in a logarithmic fashion.

Further, as research-intensive industries grow faster and create more favourable conditions for further research and growth, the forces of industrial development

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and technological research kindle the fire of dynamic urge among the existing companies to avail themselves of the varied opportunities created by the economic progress. This phenomenon further accelerates the tempo of the cumulative process of economic development.

Moreover, diversification also breeds that variety of working ability, resilience of occupational quality and inventory of knowledge, skill, and know-how which would be required but which would not otherwise be forthcoming when output in a specific direction is to be altered, so as to make the country thrust its way through the stifling blanket of a vast wilderness into an amazing vigorous agricultural and industrial empire so essential for any economy to survive as a potential, self-sufficient and free entity.

Thus to the extent that "economic growth draws its vital nourishment from a stream of fresh ideas, inventions, devices and techniques without which —no matter how favourable all other factors might have been —modern development would have been essentially inconceivable," diversification, while serving as a nursery ground to research, science and technology, plays a pivotal role.

b) Stability — Again, as business specializations

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and rigidities germinate cyclical fluctuations in the economic system (because under such situations there are more possibilities for the activities pursued to move in exact accord and thereby increase the amplitude of cyclical fluctuations) diversification, through a rational selection of investment channels, induces transfer of productive resources among varying uses. This process of substitution not only accentuates equality of marginal return and maximization of total revenue from investment funds or productive activities, but also brings forth a realised synchronization of productive processes and production ends. This further reduces, if not eliminates, the amplitude and range of cyclical fluctuation of business returns and thereby moderates the series of speculative mechanism. Further, it seems likely that diversification adds to the stability of individual firms, and to the extent that each firm is stable it seems likely that the economic system would fluctuate less. Thus it can be argued that stabilisation of individual firms through diversification results in stabilisation of the economy as a whole.

c) Elasticity - The most controversial aspect of diversification is its implication upon the market structure because some argue that diversified business, being big business, promotes monopolistic tendencies which make the market and thereby the economic system more imperfect, rigid or inelastic. The others hold the opinion that, "Another
The important benefit of diversification is that it increases competition. Mobility is increased, that is, resources are rapidly shifted to more economic uses. Mere size is not an offence. All we can conclude is that diversification as such is not monopolistic. The thesis that diversification is an anticompetitive practice is based upon the following arguments:

First, as 'the early bird catches the worm', an entry by two or three existing firms into new industries which, due to their capital intensiveness have high barriers for any other new entry, paves conditions for setting up extremely rigid and disciplined oligopolistic stability. Their absolute economies of size set great impediments to any potential competition.

Second, when big and diversified companies encounter each other as seller and buyer, through their reciprocal exchange of favours, each of the conglomerate units strengthens the other and eliminates direct competition between the competing companies by foreclosing the markets.

Third, to destroy the more specialized rival competitors and to set the selective forces of competition in operation, the diversified concerns deliberately lose money in certain activities because of the existence of their other profitable activities which subsidize the unprofitable points.

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In other words, diversification leads to selected price cutting and loss leader tactics which drive the rival concerns to the wall.

Fourth, diversification, by synchronising certain production stages, processes, or sources of raw materials, may lead to substantial control of scarce resources by a few producers. Entry into industries employing these scarce resources is rendered more difficult.

Fifth, "Another complaint against diversification is that it leads to the control of substitutes and hence to monopoly. Since diversification is required to carry a firm into the sale of substitute products, any argument against the control of substitutes may be considered an argument against a form of diversification. Thus it has been said: A business unit which enters upon the production of substitute for its original product frequently does so to protect its investment in plant and good will. There is little inducement to such a concern to compete vigorously with itself."21

Thus the attack made on diversification of the order cited above indicates that it leads to such abuses as "tying clauses, full line forcing and other coercive practices which, by preventing dealers from exercising free choice, and inevitably in restricting competition, because

diversification is linked so closely to these illegal practices, the argument runs that sound social policy should control it as the enabling condition of such abuses.  

But, on a further analysis, many of these arguments can be controverted in view of the following reasons:

First, as ambition must be made to counteract ambition, diversification serves as a growing threat to monopolistic tendencies. This works when high profits are earned by a monopoly or a well organized oligopoly, and other firms through diversification may try to break into the enchanted circles unless the monopolies have held down their profits in order to avoid that possibility. In this way an entry into the industries in which few firms account for a larger proportion of total output or sales, unless accompanied by means other than merger, makes diversification an important source of new competition and threat to monopolization.

Second, with the growing diversification most of the conglomerate concerns would be allocating their investments to a larger number of economic pursuits, and the disposal of these funds in each activity would form a small part of the total investment in that activity. In this way diversification reduces the degree of seller concentration and sharpens the bayonet of competition.

\[22\text{Andrews R. Kenneth, op.cit. p. 92.}\]
Third, the argument that diversification exists to threaten small business is, in fact, entirely inconsistent with the paternalist attitude of the diversified companies towards small business. Big diversified business always hands over the auxiliary activities or diagonal functions to small specialized business which the latter can do better.

Fourth, every business enterprise experiences a tug of war between the economies of specialization on the one hand and the attraction of risk off-setting or entrepreneuring on the other. If all entrepreneurs show some pattern of behaviour, for example, they are risk-lovers, they will most probably choose to specialize completely, and if production offers economies of scale, oligopoly or monopoly may eventuate with a complete break down in the competitive assumptions. But a larger number of firms, limited by the difficulties of borrowing from risk-averting, shy investors in a stock market, and also because of their management's own fears to withstand effectively the recession, do cross the boundary lines of their industries and thereby make the canopy of oligopoly and monopoly collapse.

Fifth, though it is seen that a "full line forcing" cannot exist without diversification, as if the former is an inevitable concomitant of the latter, it is always wrong to assume that tying of one product to another is anti-competitive or against the consumer's interests. Sometimes, a business policy of carrying a full line is undertaken
because a distributor or a consumer requests the manufacturer to "round-out the line" for the former's convenience. For example, complementary goods, which are used as part of a tying scheme, are often provided for the convenience of customers. Similarly, diversification does not always lead to sales in the same market if the products are divergent in relation. In such cases there can be no tying of products.

Sixth, "If the maker of two products cuts the prices of one of them below cost, using profits from the other to maintain his general position, he may be attempting to monopolize the first product. His ability to do so depends upon several conditions. He must have enough monopoly in the second product to earn high profits. For without high profits he cannot subsidize his attempt to monopolize the first commodity. In the second place, the seller must enjoy a reasonable prospect of successfully monopolizing the first item. Unless he has such an prospect of potential success, he will be making a poor investment. Again, the price-cutting must be prepared to fend off retaliatory action by competitors. And if the cut prices are subsequently raised in an effort to capitalize upon monopoly achieved, new firms may be attracted into the industry."23

Thus the proliferation of activities by diversified companies results in an increase in the degree of

23G.E. Hale. op.cit. p. 349.
competitiveness in industries which in its turn accentuates social welfare through better allocation of resources in the economy and lower prices for consumers. Again, as business decisions are not always made with the objects to optimise profits, exploit the public, squeeze small business, defraud the government or otherwise endanger the community as some businessmen are responsible citizens, any discouragement or prohibition of diversification will raise barriers to new entry into industries, with an adverse effect on competition and consumer welfare.

d) **Efficiency** - Unlike a single-product firm which is prone to carry surplus labour and other charges on heavy capital investments such as plant and machinery, transportation and handling equipments, legal, distribution and managerial services, technology, raw materials and working capital, as these resources are fully employed only at exceptional times (more true with firms engaged in activities characterised by seasonal or cyclical oscillations), a diversified firm is more likely to utilize fully these resources and cut the costs of production and distribution. Thus because of these resource utilization economies, the elasticity of the marginal return of the investment schedule for individual firms is much greater when the schedule takes account of opportunities for diversification than when it does not. In other words, diversification generates
Further, as normally the marginal return of investment lies below the average rate of return in a given industry and it falls as the rate of investment increases, the marginal return of investment in diversification falls very slowly with an increase in the rate of investment because diversified firms while entering into other industries invest a large amount of their resources at a prospective rate of return only a little below the average rate of return in the industry being entered (See Figure III). In this process, therefore, diversification together with size creates a superior position which most often becomes an indispensable form of efficiency and hence yields a series of net benefits to the consumers.

24 In business literature it is frequently described as the "2 + 2 = 5" effect to denote the fact that the firm seeks a product market posture with a combined performance that is greater than the sum of its parts. H. Igor Ansoff, Corporate Strategy. New York: McGraw Hill Book Company, (1965), p. 75.
Similarly, diversification on the pattern of vertical integration, widens the scope of control of single management over various consecutive stages of commodity development, and thereby induces a more orderly planning of production and productivity. Though the effect of vertical diversification upon the business cycle is far from clear, yet in a developing economy where cyclical fluctuations are not so important, this phenomenon is certainly more helpful in making economic planning successful because the imbalances in the demand or supply of vertically related goods would be corrected more rapidly.

Again, enterprises envisage diversification with a view to making practical use of industrial research that might be carried on in their laboratories for increasing the vistas of further diversification and product innovation by utilising the country's waste and converting it into useful by-products to create additional wealth. This extends the horizons of know-how and market choice as well as promotes auxiliary activities for smaller business and new uses. Moreover, in diversified concerns, intra-firm competition is an important feature as every rank and file exerts for promotion to higher ranks and salary. The severity of this form of quasi-competition not only aggravates the competition in enlarging sale volume and records of efficiency in production, but also develops and promotes fresh, original and innovating minds.
In the context of technological change it might, therefore, appear that the firm which is constantly exposed to adopting multiple-product lines would be more affected by business risks than the firm which goes on in much the same way from year to year. In fact, however, the opposite is often true. Thus a progressive and diversified firm no doubt has more risky changes to make, but it is also much more likely to analyze its investment problems in a scientific manner, and to gather all the data about the techniques, markets, supply of materials and so forth which may keep it from reaching a constant decision for its stability and solidarity. Thus diversification is the main spring of economic progress and hence an important test of a company's social contribution.

But to make the tallies on the other side of the ledger it can be argued that a helter skelter diversification may be more expensive to a firm and much more to the economy. Instead of proving to be an effective antidote to unemployment and underdevelopment of resources, it may generate waves like fluctuations and slumps in the economic system. This is because the business pragmatism, a noticeable

25 "As the firm gets larger its management structure becomes more complex; there is more 'paper work', and what were formerly guesses in the Managing Directors' mind assume the respectability of recorded 'estimates' passed from department to department." C.F. Carter and B.R. Williams, Investment in Innovation, Oxford: University Press, (1958), p. 100.
characteristic of the business system, develops a kind of "group thinking" and "group outlook" about the glamorous industries and growth commodities industries among the existing firms. This in turn, due to historical, psychological and sociological factors leads to "group moves" like a swarm of bees, and this not only shrinks opportunities for all but also causes an idle capacity or high cost. In this process when costs saddle the horses of prices, recession sets in and gives a disturbing shock to the stability of the economic system.

Similarly, "changes in the demand for final products would be expected to be more rapidly transmitted through the whole productive organism where vertical integration is common than where it is not, i.e., cyclical changes would be more sudden both in times of increasing and in times of decreasing business activity." Thus in an economy

26 A very frequent motive for diversification is to exploit a profitable opportunity in a sector of the economy that promises a higher — than average rate of return .... No one can quarrel with a decision to exploit a profitable opportunity. The difficulty lies in the fact that industries that are highly profitable don't stay so indefinitely .... The point, however, is that different industries are most profitable at different points in time. The tendency for above-average rates of return to move toward the average is strongest in industries that are relatively easy to enter ... the ease of entry ... brings profits down to the average level." Michael, Gort. "Diversification, Mergers - Profits", op.cit. p. 38.

where diversification is on the pattern of vertical integration or successive function, the amplitude of cyclical variation is high.  

Similarly, when a firm diversified via acquisition or merger, the economic system as a whole does not substantially gain real investments because mergers and acquisitions affected by exchange of securities compete for funds, with real investments, and hence fail to leave any positive effect on real investment or capital formation for accelerating the pace of economic development.

Further, it is argued that diversification compels competitors to diversify because when any producer starts

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28 This argument is refuted by L.K. Frank who believes that "For one thing, integration will largely reduce, if not eliminate, business cycles, for the simple reason that it will remove business from control of industrial processes, thus permitting that continuous, non-fluctuating operation which is the peculiar function of the machine. Even agricultural operations, which are so variable and seemingly beyond man's control, will be regularized so far as production is concerned, since integration of agriculture with the industries using agricultural products will undoubtedly be accomplished by development of reserve stock and storage of stabilizing crop yield from year to year thus freeing industrial operations from the risk and uncertainty of fluctuating crops". L.K. Frank, "The Significance of Industrial Integration", Journal of Political Economy, (1927), p. 193.

29 It may be argued that recipients may use the funds for their real investment or buy securities or spend them on consumption. But the income effects of such investments are much less certain than in the case of real investments.
"rounding out his line", all other rival concerns must do
likewise in order to remain in the market. This most often
causes an increase in the amount of capital required to
enter the industry. Thus this increase in capital require­
ments sets a barrier to new entry or potential competition
because most often a new entrepreneur, despite his better
products, fails to get customers if he does not provide a
complete line.

Similarly, again while looking at the tail of the
coin, diversification may lead to less efficient allocation
of productive resources and dissipation of savings and
investments in the economy. This happens when decisions
taken by business enterprises to diversify their activities
yield "white elephant projects" — ventures which do not
stand the objective tests of technical and economic feasibi­
lities but are the outcome of marketing and product myopia
and a lust for power.

Further, due to diversification, the economic system
also stands at a loss when inefficiently made products are
subsidized through diversification. This is because for
the production of a commodity there are in the system, on
the one hand, a number of non-integrated or specialized firms
capable of operating at the highest level of efficiency in
all their stages of production, and on the other hand, a
number of firms which have vertically integrated the various
stages of production but are efficient only in one or two
stages of production. In such cases, a diversified firm may remain profitable despite the fact that one of its products is produced in a wasteful manner. If that is so it violates one of the causes of competition, this is, responsiveness to commercial incentives (profits and loss) of a market.

The foregoing discussion discloses that the implications of diversification on growth, stability, flexibility and efficiency of a firm and of an economy are neither all belief nor all incredulity, neither all bright, nor all dark. Because of the contrarieties, it becomes difficult to conclude or to understand implications unless the problem of diversification is studied in the context of a given set of environments and conditions.

At this crossing, the present study attempts to explore the possibility of understanding motives and conditions which made the Indian entrepreneurs undertake moves of diversification, and thereby it seeks to examine whether the change in the industrial structure as fostered by these moves has in any way transformed the economic environment and raised the levels of productivity. By virtue of this, the study also unlocks the particular areas of production which have been penetrated and nourished by the diversified firm, and examines the underlying questions relating to nature, extent and trends in the diversification movement.