Productivity, is an all embracing term, which refers to the overall net yield of goods and services, during a specified period, achieved with a given volume of resources. It refers to the relationship, between the result and the means employed or to be more specific, between the product and factors used for obtaining it. It denotes the efficiency, with which, various inputs are converted, into goods and services. It seeks to measure, the economic soundness, of the use of the means employed. Thus, productivity can be considered to be higher, if the same product, is obtained, with limited means. It will be maximum, when the highest output is obtained, with minimum expense of resources.

Productivity is different from production. Production is the physical aspect of producing more goods and services, irrespective of the costs involved. Productivity envisages an efficient utilization of resources, which would lead to greater production, at lesser cost.

Productivity has to be managed, through various techniques, drawn from quantitative analysis, in the field of operations management, and also the behavioural science.
The American Productivity Centre, defines productivity as "the efficiency, with which, an organisation uses its labour, capital, material and energy resources, to produce its output".

According to the European Productivity Council, "Productivity is an attitude of mind. It is the mentality of progress, of the constant improvement, of that which exists. It is the certainty of being able to do better today, than yesterday and continuously. It is the constant adaptation, of economic and social life, to changing conditions, it is the continual effort to apply new techniques and new methods, it is the faith in human progress".

This definition of productivity, stresses, more, on the human contribution towards productivity. Though capital, materials and machines are indispensable for productivity, finally it is man, who deals with these factors of production and his importance in doing so, is meaningfully portrayed, in the above definition.

Sloan defines productivity as "the amount each worker produces, during a given length of time".

Similarly, Joseph Prohopenko\(^4\) observes that productivity can also be defined as the relationship between result and the time it takes to accomplish them. The less the time taken to achieve the desired result, the more productive the system, as time is beyond human control”.

Different people like industrialists, trade unionists, engineers, economists and workers—both in industry and government, have been constantly discussing and interpreting productivity, in their own way. However, one thing, common to all these interpretations, is the desire to portray one's ability, to produce at an economical rate.

The real meaning of productivity, is to produce more, with the same amount of human effort. It is not a matter of making employees work longer or harder. Increased productivity results mostly from sound planning, wise investment, new technology, from better techniques and from greater efficiency. Beyond this, it depends on sincere and conscientious effort, of every employee, to do a fair day's work, for a fair day's earning.

The essence of productivity improvement, is working more intelligently, with the same amount of resources. An organisation which wants to serve, grow, and prosper in a highly competitive, rapidly changing and complex environment,

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must pursue excellence, and improve quality of productivity, in every area. The pace of economic development of a country, cannot be increased by additional resources alone. It is equally important, to enhance the productivity of the resources at its disposal, by using them with greater efficiency.

Factors determining productivity:

Basically, productivity is the ratio, between the input and the output. Some managers believe, that as the output is produced by machines, the level of technological advancement determines the productivity of an organisation. Some, on the other hand, believe that it is the man behind the machine, who operates it, no matter how modern the machine is. Hence, it is he, who determines the productivity and influences it.

"Man is intelligent and creative, but slow, whereas a machine is uncreative, but fast. Both must work in harmony and in unison, to supplement the efforts of each other, in order to maximise productivity. Productivity is the key to prosperity and workers have a role to play in increasing productivity".  

As productivity is expressed, as the ratio between input and output, it can be expressed as under:

\[
\text{Productivity} = \frac{\text{Output}}{\text{Input}} = \frac{\text{Input+Profit}}{\text{Input}}
\]

Input comprises of various components, which together, influence productivity. The level of productivity, is not the mere summation of the productivities, of the various factors of production, that enter the industrial equation. "It is more, the interaction of a variety of attitudes, personal, cultural, within the social situation, that determines the level of productivity;"  

Productivity is, therefore, the result of a complete interaction between manifold factors—technological, social, managerial, political, sociological and economic.  

Thus, all input components—capital, labour, equipment, materials and energy, have a very crucial and influential effect, on the productivity of an organisation. Prokopenko classifies them into two groups-hard (not easily changed) and soft (easily changed). Hard factors include products, technology, equipment and raw materials while soft factors include the labour force, organisational systems and procedures, management styles and work methods. 

Significant capital investments and use of higher and new technology, can improve productivity, by raising the output, with the given input of resources. Low cost automation 

7. Suri G.K. and Jagadishkumar, editors, "Insearch of productivity", NPC, New Delhi, 1989, page XI.  
can improve materials handling, storage and quality control. Extensive research and development studies, to find out the best method of utilising the equipment, energy, materials, so as to maximise the efficiency of the organisation, prove very effective, to enhance the productivity position.

Direct and indirect materials, used by an organisation, to manufacture its product, significantly affect the productivity. Hence, some aspects of material productivity, need attention. For example, selection and quality of material, material consumption, controlling scrap and rejects, finding cheaper and easily available substitutes, improving inventory turnover and management etc.

Energy utilisation in an economic manner, is also an important determinant of productivity. Lowering of the energy consumption, per unit of output, helps to reduce cost of production and thereby increases productivity. Compared to developed countries like U.S.A. U.K. and Japan, our country's energy use in industries, is the maximum. Good housekeeping, energy substitution and modernisation, go a long way, in effective energy conservation.

Among the soft factors, the labour force or the human factor, is of prime importance, in influencing productivity. Capacity, creativity and performance of the employees, form a crucial factor, influencing productivity. Workers in different nations differ in terms of productivity, because of their
divergent knowledge, training, attitudes, skill, health, physical strength, levels of morale and job satisfaction, innovative idea and encouragement. It is very important to note here that the potentiality of human resources, for performance, must be fully utilised, by using various techniques.

A relevant observation is made by the noted economist Pablo Casals, who says.

"This is new and it is also very old. We have come from the tyranny of the enormous, awesome, discordant machine; back to a realisation that the beginning and the end are man— that it is man who is important, not the machine and that it is man who accounts for growth, not just dollars or factories. Above all it is MAN, who is the object of all efforts".9

Delegates from 20 countries, attending the Fifth World Productivity Congress, held at Jakarta, Indonesia, reaffirmed the role of human resources, in productivity, improvement thus, "We also believe, that the importance of human resources to the productivity movement, needs greater emphasis, since people constitute the driving force, for national and world development. All people should realise, what productivity advance can do to them and what they can do to advance productivity."10

Thus, people are the prime movers for increasing productivity. Hence, they should be motivated, developed and employed gainfully, to harness their creativity, innovativeness and potential, to optimise benefits from all the resources. An organisational climate for work and productivity, has to be created by the organisation and thus get maximum returns from employees.

As Prokopenko puts it, "The importance of the social side of productivity, has increased considerably." More importance is now given to the qualitative conception of productivity, than to quantitative definitions or calculations. This includes less tangible features, such as degree of job satisfaction, attitudes of employees, absence of labour stoppages, rate of turnover, absenteeism, market standing and customer satisfaction. These parameters give an indication, of the trend in productivity, even though they do not lend themselves to exact quantification.

Formal analysis of the basic productivity factors, such as output, input, labour, capital technology and managerial motivation, reveals that more than half of these factors, are concerned with the quality of the labour force. A close study of other technical factors, reveals that this quality, is also an integral part, of the quality of human input.

Human resources, therefore, play a pivotal role in influencing productivity.

In addition to the above, improved work methods, management styles, organisation systems, maintenance management and condition monitoring systems, pollution prevention and conservation of resources, computer aided systems, etc., also influence the company's productivity and hence, must be planned carefully.

Human Resource Development and Productivity:

The effects of HRD are such that they cannot be observed or quantified. HRD is like a flower in bloom, the fragrance of which, is to be experienced and difficult to describe. Behind performance are individuals and behind results are people. In turn, behind people, are a number of complex factors, which influence their behaviour, performance and, thus, productivity. Hence, it may be reasonably said, that productivity is influenced, to a great extent, by employee behavioural factors like motivation, morale, leadership, creativity etc. An improvement in the levels of these factors, therefore, leads to an improvement in productivity.

It is now contended, that people are not machines, and that, personal factors like personal motivation, leadership, morale, and identification, are much more important, in
contributing to high worker efficiency, (productivity) than the specifics of engineering.¹³

It is, therefore, essential to ensure, that the climate or the environment, prevailing in the organisation, is a healthy and cordial one. This climate, has a great impact on the feelings, attitudes and work behaviour of its members. Efforts to improve human productivity, must therefore, focus on improvement in the work climate, of the organisation.

According to Victor. H. Vroom the differences in the level of performance, are the functions of abilities and motives of the individuals. The effects of ability and motivation, on performances, always interact with each other and this multiplicative relationship, can be expressed as follows:

Performance = f (Ability x Motivation)

A fluctuation in the value of any of these factors, has a direct impact, on the performance capability of an individual. Here, the effects of HRD, on the individual's productivity, are clearly understandable. By improving his ability and skills, HRD aims at improving individual performance and leads him in

the desired direction, by enhancing his motivation and morale levels, improving communication between him and his colleagues, seniors and juniors, increasing leadership abilities and boosting his work satisfaction.

Motives and condition for human productivity, are not just a matter of methods and techniques. They are intrinsically related, to man's search for 'meaning' and 'purpose' in life. Upto a point, incentives for effective performance, in terms of money, recognition, rewards and autonomy, are valid. But man's willingness, to develop his creative potential, his willingness to cultivate his capabilities of excellence and his willingness to apply his intelligence and diligence, to work situations, cannot be sustained on a stable and lasting basis, in the absence of linkage of his efforts, within the meaning and purpose of his life. Identification of life's meaning and purpose, requires a matching, consistent and equilibrial set of cognitive motives and orientations, in the human personality. And this is exactly, the mission of an HRD programme. It aims at bringing out a congruence, between personal and organisational goals and thereby enhancing, productivity through people.
Various studies in the past, have proved the effects of intangible factors, on an individual's productivity.

A mathematical analysis demonstrates that sustained productivity of a person, industry or country, requires large and continuous input of "encouragement". Here, encouragement represents, a driving force for the human system, to maintain or increase productivity, by overcoming inertia, laziness, sloth, etc.

A study on creativity, in a technical organisation brings out the moral dimension of personality and performance, of creative persons. Such persons are dedicated in their work, loyal to peers, increase others' motivation and create effective response in people. These are the qualities of a person, who is morally sensitive. It is dimension of moral purpose and meaning in work situations, that is the crux of human productivity and innovation which, in turn, is the crux of all HRD efforts.

Cribben's study\textsuperscript{17} on "Effective Managerial Leadership" in the context of motivating employees, towards their peak performance, is very valuable. To extract their peak performance, one must get the people to drive themselves, instead of driving them. This can be done, only through effective leadership. A good leader, in addition to values, ideals, self-esteem and sensibilities, needs something more i.e. a vision, which can inspire his followers and motivate them, towards excellence in productivity.

From the foregoing discussion, it is obvious that intangible attributes like encouragement, creativity, morale, motivation and leadership, do play a crucial role, in influencing productivity and an increase in the levels of such factors, can be effectively achieved, only through meaningful HRD efforts, as human beings, form the core of HRD.

Hence, we may reasonably conclude, that HRD efforts have a proportional impact on the productivity of an organisation, which, though not tangible, can surely be experienced or observed to a certain extent. HRD aims at improving performance (productivity) by improving the individual's ability and motivation, which interact with each other and give desired results. This relationship and process is clearly depicted in figure 4.

EFFECTS OF H.R.D. ON PRODUCTIVITY

H.R.D. PROGRAMMES AND INTERVENTIONS

- Training
- Organisation development
- Career planning and counselling
- Quality circles

- High morale & motivation
- More skills
- Better leadership & communication

- Development of a congenial atmosphere
- Improvement in the H.R.D. climate
- High job involvement
- More job satisfaction and sense of belonging

- More willingness to work
- More exposure of inherent abilities and creative talent
- More safety
- More cost reduction suggestions
- Better use of effective leadership

MORE PRODUCTIVITY

- Better handling of material and machines
- Cost reductions in all spheres of activity
- Happy and contented labour force
- Less employee absenteeism
- Less employee turnover
- Less accidents
Measures of Productivity:

Productivity measurement and analysis, is a very important tool, for decision making, at all economic levels. Productivity measurement, is necessary, to detect possible areas of productivity improvement. When productivity objectives are set, all efforts of the organisation, can be directed towards attainment of these objectives. The result of these efforts, must be measured, so that proper control, in the relevant field of activity, may be exercised. Only when the results are measured, can we know the areas of desired improvement. "Productivity indices, have often been characterised, as the "barometer" or "benchmark of a country's economic and industrial advancement". 18

Productivity indices, establish the trend and extent of variations, not only in the productivity of the same production line, over different periods, but also between different or similar production lines, in relation to the same time or different times. 19 Hence, the necessity, of productivity measurement.

Partial and Total Productivity:

Productivity may be, of labour, capital, material, power or may be a combination of two or more, or all of these

factors. Therefore, productivity is analysed, in two broad ways.

1) Partial productivity
2) Total productivity.

Partial productivity is also known as factor productivity and is defined as the ratio of output to input, of a specific factor of input. Therefore partial productivity is equal to

\[
\text{Output from a specific factor input} \quad = \quad \frac{\text{Input of a specific factor input}}{\text{Output from a specific factor input}}
\]

When one wants to know, the combined effect of all inputs, it is called Total Productivity Analysis. It is defined as the ratio of total output to total input. Symbolically,

\[
\frac{\text{Total Output}}{\text{Total Input}} = \text{Productivity} (\text{All factors of Production})
\]

The Total Productivity index, is an index, for the organisation as a whole. Its measurement, helps in analysing, the management effectiveness, in employing total resources. The management is able to know, the direction, in which, the business is moving. "Total Productivity measure gives a very good basis of comparison, with competitors. This measure, can provide a basis, for significant decision, related to growth, expansion and efficiency".  

productivity figures, pertaining to different periods of time, enables the organisation, to study the changes in the productivity level. Similarly, inter firm comparisons are designed, to detect factors accounting for economic growth.

Though the total productivity figures facilitate comparison, the organisation has no means, of understanding, the areas which need improvement. The inputs of the organisation include capital, labour, energy and materials, all of which, influence the productivity of the organisation. Hence, in addition to the total productivity, it is desirable to study the multifactor productivity, with relation to these factors of input, to identify the weak areas and study the means of improvement.

Capital Productivity:

This dimension of productivity, shows how efficiently, the available capital, is allocated and managed. It may be calculated from different view points. For eg. the percentage machine hour utilisation, may be arrived at or the value added, per unit of financial capital or total assets or fixed assets, may be calculated. Capacity utilisation of the machinery can be calculated as follows:

\[
\frac{\text{Actual Hours Worked}}{\text{Total available hours}}
\]
The value added concept is universally recognised and very useful in analysing productivity. It can also be defined, as the sum total of all costs, excluding raw material costs plus profits. In other words, the value added to a product, is the market value of improvements made on the raw materials. The value added per unit of inputs can be arrived at, using the following formulae.

1) \[ \frac{\text{Value added}}{\text{Tangible and Intangible assets}} \]

2) \[ \frac{\text{Value added}}{\text{Fixed Assets}} \]

3) \[ \frac{\text{Value added}}{\text{Financial capital}} \]

4) \[ \frac{\text{Value added}}{\text{Machinery and equipment}} \]

Labour Productivity:

The exponents of the theory of "productivity of labour" regard labour productivity as one of the basic indicators of economic development, as the major determinant of the national income and as an important tool for the analysis of economic and social problems. The importance of labour productivity is thus obvious. In a report of the ILO on "Higher productivity in Manufacturing industries" it has been observed, "While the
concept of the productivity of hand and capital equipment, are very important for certain purposes, the concept of the productivity of labour, has received the lion's share of attention in recent times—so much so that it has been suggested that when the word "Productivity" is used without further qualification, the productivity of labour is understood".  

The concept of labour productivity, also finds a pride of place, in the Keynesian verdict "It is preferable to regard labour, including of course, the personal services of the entrepreneur and his assistance, as the sole factor of productivity, operating in a given environment of technique, natural resources, capital equipment and effective demand. This partly explains, why we have been able to take; the unit of labour, as the sole physical unit, which we require in our economic system, apart from units of money and of time".  

To quote Prof. J.K. Galbraith "We get a larger part of industrial growth, not from capital investment, but from investment in men. We get from men, pretty much more, than what we invest in them."

Hence, studying labour productivity, from different angles, shows how well, the labour force has been used. If it is decreasing, a detailed investigation, into the various dimensions of labour productivity, throws light on the reasons for decrease in productivity. Thus, it greatly helps, in identifying problems and analysing causes.

However, increasing labour productivity, may not always mean that workers are more productive. The organisation may go in for modernisation, automation etc., due to which, there is a rise in production, thus reflecting more labour productivity. Hence, under such circumstances, a detailed analysis of capital productivity, labour productivity and the C/L ratio (Capital/Labour ratio) will correctly predict, the efficiency or otherwise, of capital or labour.

Various dimensions of labour productivity, may be studied, to give a convincing conclusion, about the efficiency with which labour is managed.

Value added per annum, per employee, per man hour and per rupee of emoluments, may be calculated, to find out the contribution by employees, towards value added each year, to their organisation.

\[
\text{V.A.} = \frac{\text{Value Added (VA)}}{\text{Total No. of employees}}
\]

1) Value Added (VA)
2) V.A. per man hour or man day worked

V.A. = -------------------
Man hours Worked or man days Worked

3) V.A. per Rupee of emoluments

V.A. = -------------------
Wages/Salaries

The value added per rupee of emoluments indicates, how much, each rupee of salary, paid to the employees, fetches to the organisation.

Output of Goods & Services
Manpower Productivity = -------------------
No. of employees

The productivity of labour, can also be studied by finding out the output, in terms of quantity produced, per employee, or per man day worked, as follows:

Output, in tonnes, = Tonnes manufactured
per employee Number of employees

Output, in tonnes, = Tonnes manufactured
per man day worked May days worked

An effective indicator of labour productivity, is the labour time required per tonne, which can be arrived at by dividing man hours worked by the total tonnes manufactured. Labour productivity may be said to go high, if lesser time is required, to manufacture of same quantity of output.
Social factors like degree of job satisfaction of the employees, their attitudes, sense of belonging to the organisation, morale and motivation levels, labour turnover, absenteeism, number of accidents, etc., also give valuable clues, regarding trends in labour productivity.

Energy and Material Utilisation:

The record of Indian industries, in productive utilisation of their energy resources, as compared to countries like Japan, U.S.A., U.K., & West Germany, is not favourable. Hence, it is very essential, to lower the energy consumption rate and thereby increase productivity.

The value added concept, can be used effectively, to study material productivity, by dividing the value added by the cost of materials consumed. This figure indicates the value added each year, by using a unit of material. It has been established, in studies carried out by the National Productivity Council, that energy savings up to 20 percent, can be achieved, through good house keeping and marginal investments. Process modifications, energy substitution and modernisation, certainly help in energy savings.

Energy productivity can be calculated, by dividing the total units of energy consumed or the value of energy consumption, by the total tonnes manufactured.

In the recent past, progressive organisations have been increasingly adopting a new philosophy of sharing the gains in their productivity, not only with the workers, but also with the community and society at large. Organisations which are wedded to this philosophy, are of the opinion, that advantages of increases in productivity, should percolate down to the entire society. Hence, programmes like village adoption, literacy programmes for widows, rural development programmes in backward areas, rendering financial assistance to social organisations, helping in employment generation programmes and improvement of sanitation, community development and social welfare schemes, have been gaining importance. Such steps indicate, the overall image and productivity, of the organisation.

Productivity in India:

The need for higher productivity, has become a basic condition, for the economic growth, in India. Many of the problems of our country, can be solved, by being productive, in utilising available scarce resources. "In our country, we have resource constraints, coupled with the pressure of ever growing population. The urge to develop and urgency to develop, particularly in the rural sector, is today, greater, than ever before. Our share of the global trade, has no proportion to our
size. There is still a wide gap to be removed, to balance exports against imports”. 25

Today, India ranks high in terms of population, in the world and has become, the tenth industrially developed country in the world. However, its masses continue to live below poverty line and face unemployment. "About 12 percent of the total labour force, is unemployed in India. This ratio is 5.2 percent in the U.S. 3.3 percent in the U.K. and 1.3 percent in Japan. 26

Man hours lost in India, are disproportionately higher, compared with other industrialised countries, in the East or West. This makes the need, for enhancing our productivity levels, all the more important.

Causes of Low Productivity in India:

**Agriculture**: More than 70 percent of our population, depends on agriculture, for its living. Availability of land being limited, more and more people depend on the constant size of land available, thereby, leading to overcrowding, in agriculture.

The pressure of population is so heavy that the area of cultivated land, per cultivator, was 0.43 hectare, in 1901. It

has reduced to 0.23 hectare, in 1981. This is a crucial reason, for low productivity. Added to this, is the conservative and superstitious nature, of the illiterate farmers, who are happy with primitive methods of agriculture. Acute poverty, also has prohibited them, from adopting modern expensive methods of farming, efficient methods of production and providing adequate irrigation facilities. Because of poverty, they resort to borrowing at exhorbiant rates of interest, from local money lenders. Lack of satisfactory marketing services and lack of proper storage facilities, force them to dispose the crop, at a low rate. Thus, the vicious circle of poverty, continues.

Low size of holdings and pattern of land tenure, have also been responsible for low agricultural productivity.

Industry:

Factors responsible for low productivity in industry can be divided into two parts - external and internal.

Among the internal factors, lack of management expertise and under utilisation of capacity, are to a great extent, responsible for low productivity. The young entrepreneurs, start enterprises, keeping high overhead costs, borrow at high rates of interest and do not follow basic principles of business management and capital structure. Thus, non maintenance of desired financial ratios, lack of working capital, results in under utilisation of capacity and thereby
low productivity. Growth of excessive inventories, mismanagement of funds, wrong dividend policies and over estimation of demand, are some other reasons, for low productivity in industry.

External factors, resulting in low productivity, relate to Government policies, pertaining to production, distribution and prices, drastic power cuts, changing investment patterns in our five year plans, and lack of adequate supply of raw materials, at reasonable transport costs.

These factors eat away, the minimum profits made by the industrial and agricultural sectors, and seriously hamper national development.

Productivity and Our Five Year Plans:

Removal of poverty and attainment of economic self-reliance, were the main goals in all our Five Year Plans (F.Y.P.). Each Plan, was so oriented, as to speed up the process of removing poverty and fulfilling people's expectations, in situations involving massive underutilisation of human resources, a higher growth rate and an increased equality, in terms of consumption, and an overall increase in productivity.

Late Prime Minister, Smt. Indira Gandhi commented, "Productivity is an essential part of our urge for self-
improvement and the achievement of excellence, which must be the part of any dynamic society. Nothing in the world remains static. A nation, which does not move forward, will be forced backward. Our people's aspirations are changing. Change is the law of life and we have seen that change can be brought about, accelerated and channelised into desired directions, provided we have the will.  

27

The First Five Year Plan (F.Y.P.) (1951-56), stressed on rapid agricultural development, so as to achieve self sufficiency and control inflation. Thus, the main thrust here, was on improving agricultural productivity.

The Second F.Y.P. (1956-61) assigned lower priority to agriculture and a forward thrust was made, in the development of heavy and basic industries, so that the economy entered the take off stage, in industrial productivity.

The third F.Y.P. (1961-66) set as its goal, the establishment of a self-reliant and self generating economy, both in the agricultural and industrial spheres, which were vitally necessary for rapid economic development of the nation.

"Growth with stability" and "progressive achievement of self reliance" were the two principal objectives, of the fourth

FYP, Growth with justice and removal of poverty, were aimed at improving our productivity position, in all spheres.

The fifth plan envisaged, an annual growth of 5.57 percent, in the Gross Domestic Product, at factor cost, by creation and utilisation of capacity, in different sectors, greater efficiency in planning and implementation, hard decisions, rigorous disciplines and considerable sacrifice. It aimed at "growth with social justice" through promotion of higher rate of growth i.e. productivity, better distribution of income, and a very significant step up, in the domestic ratio of saving.

The focus, of the Sixth plan, was enlargement of the employment in agriculture and allied activities and encouragement to household and small industries, producing consumer goods, promotion of efficiency, in the use of resources. Thus, enhancement in all round productivity, was the underlying objective of this plan.

To give the work force, a share in the fortunes of enterprises, through a share in management and to improve industrial relations, the seventh plan aimed at improved work ethic, greater pride in work and reduced absenteeism. It aimed at minimising the loss of working days and increasing man hour productivity, substantially. It also aimed at encouraging fuller utilisation of capacity created.
"Since the need to improve the efficiency of investment and to raise the rate of productivity growth, is now urgent, an attempt should be made, in the 7th plan, to lay down productivity targets, in as disaggregated a manner, as possible, and at the same time, set out appropriate norms for economy in material and energy use, in all key sectors and industries. From the point of view of productivity improvement, increases in unit sizes, must be "keeping with the infrastructure available".  

The improved capacity utilisation, during the Seventh plan and general improvement in operational efficiency, in a number of sectors, led to the eighth plan aiming at growth and diversification of agriculture, to achieve self-sufficiency in food and generate surplus for exports. Strengthening the infrastructure, (energy, transport, communication and irrigation) in order to support the growth process on a sustainable basis, is also an important objective of the eighth plan (1992-97).  

Thus, the stress on productivity improvement in all our Five year plans, is evident from the aforesaid discussion.

Productivity and Our Industrial Policy Resolutions :  

The main thrust of the 1948 Industrial Policy, was to lay a foundation of a mixed economy, in which both private and

public enterprises would march ahead, hand in hand, to accelerate the pace of industrial development i.e. productivity.

The Industrial Policy resolution of 1956, ensured fair and non-discriminatory treatment, for the private sector, to enable it to feel confident and function efficiently, with maximum productivity. The policy was designed, to improve the competitive strength of the small scale producers, by constantly improving and modernising the technique of production. It also recognised that labour is a partner, in the common task of development and should participate in it with enthusiasm. Hence, it stressed on maintenance of industrial peace, to maximise labour productivity.

The Industrial Policy statement 1977, mainly aimed at reducing the incidence of industrial sickness and achieving a satisfactory rate of industrial growth. With this in view, it envisaged development of the small scale sector, which was its main thrust. Special arrangements were made, for development and widespread application of suitable technology, for small and village industries, for improving the productivity and earning capacity of their workers. Even in case of large business houses, it envisaged expansion and promotion of technological self reliance.

The Industrial policy statement of 1980, also aimed at optimum utilisation of installed capacity, maximising
production and achieving higher productivity, in all spheres. It decided to launch a drive, to revive the efficiency of public sector undertakings and encourage promotion of industries, in rural areas.

The new industrial policy of 1990, pursued the policy of reorienting industrial growth, to serve the objective of employment generation, dispersal of industry in the rural areas and to enhance the contribution of small scale industries, to exports. The setting up of a new Apex Bank-SIDBI, Small Industries Development Bank of India, to ensure adequate and timely flow of credit to small scale industries, was a special feature of this policy. Modernisation programmes, and upgradation of technology, were implemented. All these efforts, were directed, at enhancement in productivity levels of the nation.

The aim of the New Industrial Policy of 1991, was to unshackle the Indian industrial economy, from the cobwebs of unnecessary bureaucratic control and to introduce liberalisation, with a view to integrate, the Indian economy with the world economy. This policy also aimed to shed the load of the public enterprises, which showed a very low rate of return or were consistently incurring losses. Through relevant and necessary modifications in industrial licensing, foreign investment, foreign technology policy and public sector policy,
the industrial policy desired to give, a boost to domestic investment, attract foreign investment, which would in turn, generate more employment, along with higher output i.e. productivity.