Definition of Production

Production can be defined as the systematic activity of gradually transforming one form of material into another while maintaining the requisite quality and are capable of satisfying human wants. It tends to combine, tangible inputs, i.e. raw materials, and intangible inputs, i.e. ideas, information, etc. to turn it into finished products for sale, through a mechanical or chemical process.

Types of Production

- **Job-Shop Production**: A production process, in which few products are created according to the demand of the customer, in the stipulated time and cost. In job-shop production, product volume is low, and variety is high.
- **Batch Production**: Batch production is one wherein product passes through various stages over a series of functional departments, and a number of batches are produced.
- **Mass Production**: It is a manufacturing technique in which discrete parts are produced with the help of continuous process.
- **Continuous Production**: The process of production in which the production facilities are sequenced as per the production operations chronologically.

Definition of Productivity

Productivity is a measure that gauges the efficiency of the production process, i.e. in transforming inputs such as raw material, labour, capital, etc. into the output of finished goods. It can be expressed in terms of the ratio of outputs produced to inputs consumed, in the given period.

Productivity tends to determine the overall production performance of the firms by ascertaining how efficiently the firm utilized its resources in the production of goods and services, with minimum wastage. It can be enhanced by controlling factors of production, improving process and technology.

Dynamic Concept of Productivity

Competition triggers productivity, as intense competition results in higher productivity, which in turn provides better value to the customers, leading to higher share in the market. Further, it can be evaluated with the help of the following analysis:

- **Trend Analysis**: It gauges the change in productivity of the firm over the years.
- **Horizontal Analysis**: It compares the firm's productivity, with other firms of the same size and business.
- **Vertical Analysis**: It compares firm's productivity, with other firms of various size in the same industry and with other industries.
- **Budgetary Analysis**: Establishing productivity norm as the budget for the upcoming period, on the basis of above analysis and making strategies for its achievement.

Key Differences Between Production and Productivity

The difference between production and productivity can be drawn clearly on the following premises:

1. Production is an organized activity, wherein step by step conversion of raw materials into useful output takes place. On the contrary, Productivity is an indicator of efficiency in the production in terms of optimum utilization of firm's resources in the creation of desired output.

2. Production is a process of value addition, wherein at each level, some value is added to the product. Conversely, productivity is a measure of efficiency.
3. Production exhibits the number of units produced by the firm in a given period. As against, productivity highlights the ratio of output to input consumed.
4. Production is always expressed in absolute terms, i.e. the volume of output produced. On the other hand, productivity is denoted in relative terms, meaning that it determines the quantitative relationship between output generated and resources consumed.
5. While production ascertains the value of output generated, productivity determines the how well the resources are utilized by the firm in the generation of output.

Difference Between Production and Productivity

Last updated on September 27, 2017 by Surbhi S

The level of **productivity**, in the production, determines the profitability, efficiency and performance of the enterprise, i.e. the higher the productivity of the firm the greater will be the earning capacity. It aims at determining the relationship between the input and output, in a particular production process. In short, it is nothing but attaining the highest possible outcome, while consuming minimum factors of production.

Productivity is often misconstrued with production, but there exists a difference, in the sense that **production** indicates the volume of output, whereas productivity is the output generated from the resources employed by the company. This article attempts to shed light on the differences between production and productivity.

Comparison Chart

BASIS FOR COMPARISON	PRODUCTION	PRODUCTIVITY
Meaning	Production is a function of an organization which is associated with the conversion of range of inputs into desired output.	Productivity is a measure of how efficiently resources are combined and utilized in the firm, for achieving the desired outcome.
What is it?	Process	Measure
Represents	Numbers of units actually produced.	Ratio of output to input
Expression	Absolute terms	Relative terms
Determines	Value of output	Efficiency of factors of production

Productivity – Importance

Productivity has become almost synonymous for progress. The resources of a country are generally limited.

Therefore, higher productivity is essential for improving living standards and for the prosperity of a nation. Higher productivity requires elimination of waste in all forms. Higher productivity leads to economic growth and social progress.

It is only by improving productivity that employees can get better wages and working conditions and more employment opportunities. Higher productivity brings lower prices for consumers and higher dividend for shareholders. It improves the exports and foreign exchange reserves of a country. Thus, productivity is the key to prosperity.

Higher productivity is of special significance in an underdeveloped country like India. Mass poverty and unemployment cannot be eliminated without increasing productivity in agriculture, industry and all other areas of human activity. According to John W. Kendrick, “the chief means where by human kind

can raise itself out of poverty to a condition of relative material influence is by increasing productivity".

In brief, higher productivity provides the following importance:
(i) It helps to reduce the cost of production per unit through more economical or efficient use of resources.

(ii) Reduction in costs helps to improve the profits of a business. The enterprise can more successfully compete in the market.

(iii) The gains of higher productivity can be passed on to consumers in the form of lower prices and/or better quality of products.

(iv) Similarly, gains of higher productivity can be shared with workers in the form of higher wages or salaries and better working conditions.

(v) Availability of quality goods at reasonably low prices helps to improve the standard of living in the country.

(vi) Due to higher productivity, a firm can survive and grow better. This helps to generate more employment opportunities.

(vii) A more productive enterprise can better export goods and earn valuable foreign exchange for the country.

(viii) Higher productivity means better utilization of the country's resources, which helps to control inflation in the country.

Productivity – Factors Affecting Productivity

Productivity is the outcome of several factors. These factors are so interrelated that it is difficult to identify the effect of any one factor on productivity

These factors may broadly be divided as follows:

1. Human:

Human nature and human behaviour are the most significant determinants of productivity.

Human factors may further be classified into two categories as given below:

(a) Ability to work – Productivity of an organization depends upon the competence and calibre of its people—both workers and managers. Ability to work is governed by education, training, experience, aptitude, etc. of the employees.

(b) Willingness to work – Motivation and morale of people is the second important group of human factors that determine productivity. Wage incentive schemes, labour participation in management, communication system, informal group relations, promotion policy, union management relations, quality of leadership, etc., are the main factors governing employees' willingness to work. Working conditions like working hours, sanitation, ventilation, schools, clubs, libraries, subsidized canteen, company transport, etc., also influence the motivation and morale of employees.

2. Technological:
Technological factors exercise significant influence on the level of productivity.

The main technological factors are as follows:
(a) Size and capacity of plant

(b) Product design and standardization

(c) Timely supply of materials and fuel

(d) Rationalization and automation measures

(e) Repairs and maintenance

(f) Production planning and control

(g) Plant layout and location

(h) Materials handling system

(i) Inspection and quality control

(j) Machinery and equipment used

(k) Research and development

(l) Inventory control

(m) Reduction and utilization of waste and scrap, etc.

3. Managerial:
The competence and attitudes of managers have an important bearing on productivity. In many organizations, productivity is low despite latest technology and trained manpower. This is due to inefficient and indifferent management. Competent and dedicated managers can obtain extraordinary results from ordinary people.

Job performance of employees depends on their ability and willingness to work. Management is the catalyst to create both. Advanced technology requires knowledge workers who in turn work productively under professionally qualified managers. No ideology can win a greater output with less effort. It is only through sound management that optimum utilization of human and technical resources can be secured.

4. Natural:
Natural factors such as physical, geological, geographical and climatic conditions exert considerable influence on productivity, particularly in extractive industries. For example, productivity of labour in extreme climates (too cold or too hot) tends to be comparatively low. Natural resources like water, fuel and minerals influence productivity.

5. Sociological:
Social customs, traditions and institutions influence attitudes towards work and job. For instance, bias on the basis of caste, religion, etc., inhibited the growth of modern industry in some countries. The joint family system affected incentive to work hard in India. Close ties with land and native place hampered stability and discipline among industrial labour.

6. Political:
Law and order, stability of Government, harmony between States, etc. are essential for high productivity in industries. Taxation policies of the Government influence willingness to work, capital formation, modernization and expansion of plants, etc. Industrial policy affects the size, and capacity of plants. Tariff policies influence competition. Elimination of sick and inefficient units helps to improve productivity.

7. Economic:
Size of the market, banking and credit facilities, transport and communication systems, etc. are important factors influencing productivity.

Productivity is an economics term which refers to the ratio of product to what is required to produce the product. Productivity is outcome of several interrelated factors. All the factors which are related to input and output components of a production process are likely to affect productivity.
So, there are many factors which can influence productivity; such as internal and external. Knowing the internal and external factors that affect productivity of an Industrial organization; give industrial engineers; the intelligence, they needs to sort out the low performance of resources and make strategic plans for the future.
The best thing about internal factors is that you can control many of them. External factors are all those things that are beyond your control. To deal with all these factors we need different people and variety of techniques and methods.

Some of the Other Factors

The factors influencing productivity can be classified broadly into two categories:
(A) Controllable Factors.
(B) Uncontrollable Factor.

(A) Controllable Factors:
Controllable Factors are considered as internal factors. These are the factors which are in control of industrial organization.
Controllable factors are:

1. Material and Power:
Improved quality of raw materials and increased use of power have a favorable effect on productivity. An effort to reduce materials and energy consumption brings about considerable improvement in productivity.
It consist:
i. Selection of quality material and right material.
ii. Control of wastage and scrap.
iii. Effective stock control.
iv. Development of sources of supply.
v. Optimum energy utilization and energy savings.
2. Machinery and Plant Layout:
The size of the plant and the capacity utilization has direct bearing on productivity. Production below or above the optimum level will be uneconomical and will tend towards lower level of productivity. The arrangement of machines and position in the plant and the setup of the wore-bench of an individual worked will determine how economically and efficiently production will be ferried out.
3. Human Factors:
Human nature and human behavior are the most significant determinants of productivity. Human factors include both their ability as well as their willingness.
i. Ability to Work:
Ability to work is governed by education, training, experience and aptitude of the employees. Productivity of an organization depends upon the competence and caliber of its people (both workers and managers).
ii. Willingness to Work:
Motivation and morale of people are very important factors that determine productivity. These are affected by wage incentive schemes, labour participation in management, communication systems, informal group relations, promotion policy, union Management relations, quality of leadership, working hours, sanitation, ventilation, subsidized canteen and company transport etc.
4. Organization and Managerial Factors:

Organization factor include various steps taken by the organization towards maintaining better industrial relations such as delegation and decentralization of authority. These factors also influence motivation likewise the existence of group, with higher productivity as their goal is likely to contribute to the organization objectives.

The competence and attitudes of managers have an important bearing on productivity. Competent and dedicated managers can obtain extraordinary results from ordinary people. Job performance of employees depends on their ability and willingness to work.

5. Technological Factors:

Technological factors exert significant influence on the level of productivity.

These include the following:

i. Size and capacity of plant
ii. Product design and standardization
iii. Production planning and control
iv. Plant layout and location
v. Materials handling system
vi. Inspection and quality control
vii. Machinery and equipment used
viii. Research and development

(B) Uncontrollable Factors:

Uncontrollable factors are known as external factors and these factors are beyond the control of the individual industrial organization.

Uncontrollable factors are:

1. Economic Political and Social Changes:

There are economic, social and political factor that affects the productivity.

i. Economic Factors like Size of the market, banking and credit facilities, transport and communication systems, etc. is important factors influencing productivity.

ii. Political Factors like Law and order, stability of government, harmony between states etc. are essential for high productivity in industries Taxation policies of the government influence willingness to work, capital formation, modernization and expansion of plants etc.

Industrial policy affects the size, and capacity of plants. Elimination of sick and inefficient units also helps to improve productivity.
iii. Social Factors like Social customs, traditions and institutions influence attitudes towards work and job. For instance, bias on the basis of caste, religion, etc., inhibited the growth of modern industry in some countries. The joint family system affected incentive to work hard in India. Close ties with land and native place hampered stability and discipline among industrial labour.

2. Natural Resources:

Natural factors such as physical, geographical and climate conditions exert considerable influence on productivity, particularly in extreme climates (too cold or too hot) tends to be comparatively low. Natural resources like water, fuel and minerals influence productivity.

3. Government Factor:

Government policies and programs are significant to productivity practices of government agencies, transport and communication power, and fiscal policies (interest rates, taxes) influence productivity to the greater extent.

.