What Is Technological Change

In economics, a **technological change** is an increase in the efficiency of a product or process that results in an increase in output, without an increase in input. In other words, someone invents or improves a product or process, which is then used to get a bigger reward for the same amount of work.

The telephone is an example of a product that has undergone a technological change. It has undergone many different changes over the years that have made it more efficient. Processes or products, such as the telephone, move through technological change in three stages:

- **Invention** - the creation of a new product or process
- **Innovation** - the application of the invention for the first time
- **Diffusion** - how fast others begin to adopt the innovation

Impacts of Technological Change

technological change has impacted our world:

- Creates new products and processes

When telephones were first invented, the object was to be able to verbally communicate with someone. Due to technological changes, we have multiple ways to

communicate using our phones, such as text, email, or talk.

- Increases efficiency, lower costs

Technology makes it possible to perform everyday tasks faster and with less energy on our part. For instance, some people have a vacuum cleaning robot. Instead of spending 30 minutes vacuuming, they push a button and go do something else. That's efficiency.

- Helps economies evolve

People are able to increase the ways in which they create wealth. It also has a ripple effect. When one technological change occurs, it changes how we live. With the integration of technology, societies evolved from traditional hunting and gathering to industrialized. So that fewer people are growing crops and more are moving into other industries.

The process of growth of technical knowledge can be divided into following stages:

(a) Formulation of scientific principles

(b) Application of these principles to give technical problems

(c) Development of technical inventions to the point of commercial exploitation.

The first stage is the advancement in scientific knowledge, the second is that of the application of this knowledge to some useful purposes and third is the commercialization of invention which is called innovation. This has a great significance in the process of development. Schumpeter has distinguished between invention and innovation. Invention implies the discovery of new technique while innovation is practical application of invention in production for market.

It may be called commercialization that originates from scientific advancement. Invention is scientific fact while innovation is economic fact. Inventions are carried on by the inventors large capital investments at every stage as it needs not only a scientific attitude but an attitude of the community and an entrepreneurial skill of high order with the ability to understand the possibilities of employing scientific incentives for commercial purposes.