

UNIT 1

Invention: It is the first occurrence of an idea for any product or process. – Jan Fagerberg.

Innovation: According to Schumpeter, is a new idea applied commercially.

Thus innovation is more than just coming up with a new idea, it involves combining a creative idea with resources and expertise that make it possible to embody that idea in a useful form.

IMPORTANCE OF INNOVATION

- To a country:

1. It acts as a driving force for competition in an industry.
2. Leads to improvement in productivity
3. Improves the GDP of a country.
4. Is linked to improving standard of living in a country by creating jobs, improvements in the field of education and health.
5. Innovation is also aimed at addressing national issues by improving the way we respond to disasters and in decreasing pollution.

- To a company:

According to an Australian Study,

1. More likely to report increased profitability; -
2. More likely to export and increase the number of export markets targeted;
3. More likely to increase the range of goods or services offered;
4. More likely to increase employment;
5. More likely to increase training for employees; and
6. More likely to increase social contributions such as community enhancement projects.

Creative Destruction: waves that restructure entire industries and markets in favour of those who grasp and adapt to technological discontinuities faster.

IMPORTANCE OF IT INNOVATION

1. IT as a General Purpose Technology like electricity is an enabler of innovation.
2. GPTs are spreading to most sectors helping improve their usefulness and reduce cost at the same time. GPTs spawn innovations in other areas by making it easier to invent or produce something.
3. IT as a horizontal has helped innovate in the all the vertical fields such as health, transport, education, arts, etc.
4. Software is now key to innovation in most industries.

Examples:

1. Software for fleet logistics,
Saves cost, ensures timely delivery and tracking system, reduce emissions.
2. Softwares in Cars,
Software development for cars amounts to a considerable amount of the time spent on the overall production. For modern cars, 80% of the innovations come from software development. They enable everything from Air-bags system, entertainment, navigation to engine ignition.
5. Innovation as Creative Destruction,
 - a. Improvements in IT bring about a change in an entire industry. Example: Music industry – Home studios because of recording softwares, Bandcamp and Spotify affecting – Record Labels.
 - b. More and more business and industries are being run on IT and delivered in the form of software as a service.
 - c. The technology required to transform industries is now available.
 - d. With billions of people using smartphones, services needed can be delivered conveniently via Internet.

Examples:

Amazon, Netflix, Apple iTunes, Sportify, Zynga, etc.