AQA Economics A-level

Microeconomics

Topic 4: Production Costs and Revenue

4.8 Technological change

Notes

The difference between invention and innovation

- Invention is the process of creating a new product or a new way to make a product.
- Innovation is the act of improving or contributing to existing products.

Technological change can affect methods of production, productivity, efficiency and firms' costs of production

- Technological change can result in improvements in efficiency and productivity, which could lower costs of production for firms. The quality and quantity of goods and services produced might improve.
- For example, mobile phones have become cheaper to produce, which is why their price has fallen. More importantly, their quality has improved significantly. This is due to improvements in technology.
- Technological change can lead to the development of new products, the development of new markets and may destroy existing markets. For example, the development of DVDs, then blu-rays, and now the rise of downloadable films, has essentially destroyed the market for VHS video tapes.
- The process of creative destruction is linked to technological change.
- Small and Medium Sized Enterprises (SMEs) are important for creating a competitive market. They create jobs, stimulate innovation and investment and promote a competitive environment.
- Schumpeter, an economist, proposed the idea of 'creative destruction'. This is the idea that new entrepreneurs are innovative, which challenges existing firms. The more productive firms then grow, whilst the least productive are forced to leave the market. This results in an expansion of the economy's productive potential.

Technological change can influence the structure of markets

- Monopolies do not have an incentive to innovate, since they have no competition. This means they are often inefficient and their costs are higher than they could be.
- Oligopolies tend to have more of an incentive to innovate, since they are earning supernormal profits and are trying to get ahead of their competitors. This means that technological change is quite fast in oligopolies.