3.1.5.4 Positive and negative externalities in consumption and production

- **Externalities**
    - An externality is the cost or benefit a third party receives from an economic transaction outside of the market mechanism. In other words, it is the spill-over effect of the production or consumption of a good or service.
    - Externalities exist when there is a divergence between private and social costs and benefits.
    - Externalities can be **positive** (external benefits) or **negative** (external costs).

- **Private costs**

- Producers are concerned with private costs of production. For example, the rent, the cost of machinery and labour, insurance, transport and paying for raw materials are private costs.
- This determines how much the producer will supply.
- It could refer to the market price which the consumer pays for the good.

- **Social costs**

- This is calculated by private costs plus external costs
- External costs are the difference between private costs and social costs.
- External costs increase disproportionately with increased output.

- **Private benefit**

- Consumers are concerned with the private benefit derived from the consumption of a good. The price the consumer is prepared to pay determines this.
- Private benefits could also be a firm's revenue from selling a good.

- **Social benefit**

- Social benefits are private benefits plus external benefits.
- External benefits are the difference between private and social benefits.
- Similarly to external costs, external benefits increase disproportionately as output increases.

External costs of production:

- External costs occur when a good is being produced or consumed, such as pollution.
- The market equilibrium, where supply = demand at a certain price, ignores these negative externalities. This leads to over-provision and under-pricing.
- The market fails to account for the negative externalities that occur from the consumption of this good, which would reduce welfare in society if it was left to the free market.

External benefits of production:

- An example of an external benefit from the production or consumption of a good or service could be the decline of diseases and the healthier lives of consumers through vaccination programmes.
- Since consumers and producers do not account for them, they are underprovided and under consumed in the free market. This leads to market failure.