3.1.2.2.1 Regulation

- \rightarrow The government itself may prevent the entry or growth of a firm
- → Acts of Parliament can allow monopolies to be formed and protected, such as the provision of the National Lottery, and the former nationalised utilities water, rail and electricity all enjoyed government protection of their monopolies
- → Patents also give firms legal protections to ensure that ideas or processes are protected from competition throughout the life of the patent
- → This is important in innovation-heavy industries such as pharmaceuticals, where considerable money is invested in research and development and this innovation can only be rewarded financially over time
- → Firms require licences or specific qualifications in order to enter a certain industry, so for example law and accountancy firms have to be approved by their respective trade bodies, and radio stations have to obtain a licence before they can broadcast

3.1.2.2.2 Marketing barriers

- ightarrow Marketing barriers are imposed by businesses currently operating in an industry
- $\rightarrow\,$ This could be through branding or through a new advertising campaign to establish brand recognition
- → This investment in marketing cannot be recouped if the campaign fails this is known as sunk costs
- → For example, Coca-Cola spent millions in trying to bring its purified tap water Dasari to the UK market, but after negative publicity the product failed to take off and Coca-top abandoned its plans
- → Most companies do not have the capacity to take such escand so these market barriers, caused by the size of sunk costs, can preten a bisiness growing into a new industry or moving its operations overseas

3.1.2.2.3 Pricing barries

- \rightarrow Firms an early in the market mark () prevent new firms entering in two very distinct ways, prevatory pricing and limit pricing
- \rightarrow This is explored in more detail in section 3.3.6.1, 'Pricing strategies'

3.1.2.2.4 Technical barriers

- ightarrow A few large terms often dominate a technical industry thanks to their size
- → They use existing technical expertise and economies of scale in order to operate at the lowest possible average cost
- \rightarrow New firms entering the industry will often struggle to compete because they face far higher average costs when they operate at a smaller scale
- → In order for new firms to compete, they need to be able to produce on a similar scale as existing firms, allowing them to benefit from equally low average costs. If this occurs then supply will increase vastly, causing prices and revenues to fall, meaning that any potential profits will be eroded

3.1.2.2.5 Size of the market

- → If a firm serves a niche market that will not support expansion then there is little scope for growth
- → Manufacturers of cricket bats or a local grocery store may have expanded as far as their market will allow

- \rightarrow The example of a lemonade stall helps to explain this
 - A lemonade stall costs £100 to set up, and can sell 100 cups of lemonade each day, which each cost 50p to produce
 - In the first day, the average total cost of each cup of lemonade is £1.50 £1 to cover the initial cost of the stall, and 50p to cover the cost of production
 - If the stall sells lemonade at £1 per cup, the average total cost exceeds the average revenue, but because the average revenue is higher than the average variable cost, the firm can stay in business
 - Each cup of lemonade sold covers its production costs, and creates 50p left over to start to pay back the initial fixed cost

revenues/

- → By remaining open, the firm is able to reduce the loss it has from its fixed costs, and so the firm can operate so long as average revenue (equivalent to price) exceeds the minimum point of the AVC curve
- → At AR1, the firm would produce at Q1 (where MR = MC) and so while average revenues are less than average total costs, they exceed variable costs and therefore the firm can remain in business



→ If prices fall to AR2 then the firm would be forced to shut dow thereage variable costs (AVC) are less than average revenues (AR2), and so the irm would be unable to over the cost of production, let alone begin to make reck the losses from the initial fixed costs of setting up production

3.4.4 Monopolistic competition

3.4.4.1 Characteristics of monopolistic competition

- → Monopolistically competitive firm s have many of the characteristics of firms operating under conditions of perfect competition
- → However, firms in monopolistic competition are able to set price to a very limited extent and their products are slightly differentiated the demand curve is no longer perfectly elastic
- \rightarrow The following are characteristics of monopolistic competition:
 - There are many small firms in the market
 - These firms produce similar goods, although there is the potential for these goods to be slightly differentiated, through quality, branding or advertising
 - Firms cannot differentiate their products too heavily through branding or advertising, as these represent sunk costs and create a barrier to exit
 - Firms have imperfect knowledge about the rival firms' prices and output decisions, but firms can still identify where supernormal profits are being made
 - There are low barriers to entry
 - Firms in the market have low sunk costs, and therefore have low barriers to exit they cannot therefore invest too heavily in marketing or branding
 - Firms can set price to an extent because they are producing slightly differentiated goods from those of rival firms

3.4.4.2 Profit-maximising equilibrium in the short run and the long run

- → In the short-run, a firms in monopolistic competition can make supernormal profits
- → As with all market structures apart from perfect competition, the firm need not operate at the productively efficient point (the minimum point of the AC curve) or allocatively efficient point (where P = MC), and can instead focus on maximising profit (where MR = MC)



- → As with perfect competition, a monopolistically competitive firm cannot maintain supernormal profits in the long-run, because the near perfect knowledge of other firms' profits and the ease of entry into the market mean that supply will increase in the long-run, driving demand and AR down from AR 1 to AR2
- \rightarrow At the same time, marginal revenue will fall from MR1 to MR2, and so the profit-maximising output (where MR = MC) falls from Q1 to Q2
- → As a result, whereas before AR1 exceeded AC, now AC exceeds AR2, and so whereas previous the firm operated with an area of supernormal profit of agence in the diagram, it now operates at price P and output Q2, where average is equal to average cost, and so the firm enjoys normal profit in the long up
- → Of course, the inverse is true; if to some firms in the marker average variable costs exceed average revenues then they will pass the source will point and will leave the market this causes supply to contract, so prices and therefore average revenues) will rise
- 3.4.5 Digopoly

3.4.5.1 Characteristics of oligopoly

- \rightarrow Oligopoly exists where a few interdependent firms dominate the market
- → Interdependence means that the actions of one firm will affect the action of another firm in the market
- → For example, if one firm were to lower their prices then this may cause another firm in the industry to also lower their prices in order to avoid losing market share
- → This sort of market structure therefore tends towards collusive behaviour among the main firms in the industry
- → Examples of oligopolies include the brewing industry, pharmaceuticals, food and confectionary manufacturers and petrol retailers
- \rightarrow Oligopolies have the following characteristics:
 - A few large firms dominate the industry
 - Firms produce goods with some similar characteristics but brand loyalty tends to be strong
 - Imperfect knowledge exists between rival firms; they do not fully know each other's pricing and output decisions
 - There are high barriers to entry and exit, with a high level of sunk costs

- → Monopoly power means that firms will have the financial power to match large overseas competitors
- → Cross-subsidisation may lead to an increased range of goods or services available to the consumer; for example, the provision of services that are loss-making but provide an external benefit, i.e. contactless payment services from commercial banks
- \rightarrow Monopolists point to the advantages of economies of scale, especially where there exists a natural monopoly

3.4.6.4.2 Disadvantages of monopoly power

- $\rightarrow\,$ Supernormal profit means that there is less incentive to be efficient and to develop new products
- → The existence of resources to protect market dominance by raising barriers to entry and prevent competition may allow the monopolist to place undue pressure on suppliers
- ightarrow Monopoly power means higher prices and lower output for domestic consumers
- \rightarrow Monopolies are neither allocatively nor productively efficient

3.4.6.5 Price discrimination

- → Price discrimination occurs when a firm sells the same product in different markets with differing elasticities of demand at different prices
- \rightarrow This is used by a firm with monopoly power to increase profits and reduce consumer surplus
- \rightarrow It is only possible because of high barriers to entry and exit
- \rightarrow Price discrimination is likely to be successful under three conditions:
 - There are high barriers to entry and a degree of monopoly porver 🔾 🔹
 - There are at least two separate markets with different of ce elasticities of demand
 - The markets can be kept separate at a cost fort bower than the gain in profits; this is to prevent resale (arbitrage) be when the market
- \rightarrow In practice, it is unlikely three fect price discrimination to deau, and so we normally talk about third-deams indice discrimination
- → This is the time use different of corbased on regional, consumer-age or time-of-use differences
- \rightarrow A good example of this is with rail travel, where all three forms of discrimination are shown:
 - Journeys into London cost more, even if they are the same distance as a journey elsewhere in the country, hence regional differences
 - Child, student, adult and concession tickets are available, hence consumer-age differences
 - Peak and off-peak travel are available, hence time-of-use differences
- → This can be shown on a diagram by splitting the market in half; with fixed costs, the firm separates the market into more inelastic demand (adult, peak, London travel) and more elastic demand (student, off-peak, rural travel)
- → More inelastic demand is shown by a steeper average revenue curve, and more elastic demand by a shallow AR curve

3.4.6.6 Natural monopoly

- → A natural monopoly exists where the market can only support one firm, which is typical of an industry with high sunk costs or one in which high levels of output are necessary to benefit from economies of scale
- → The introduction of competition, by market authorities or the government, will not be possible in the long-run because in order to avoid reaching the shutdown point, a firm would