Firm Strategies Notes

Contents

Structure

Guiding principle: Assume the breadth required is writing multiple strategies unless it contradicts what the question asks of you.

Main Type 1: Discuss possible strategies a firm might employ when (cause).
Type 1a: Natural Causes – recession, increase in factor input prices, COVID-19, etc. ● State that firms are profit maximising ● B1: Explain how the cause impacts the market ● B2a: Strategy 1 → Working → Ev1: Limitations/Trade-offs ● B2b: Strategy 2 → Working → Ev2: Limitations/Trade-offs ● Evaluate which strategy is most effective/suitable given the context of the question **Type 1b:** Market Characteristics – changes in level of competition, type of product sold, etc. ● State that firms are profit maximising ● B1: Elaborate on the market's characteristics and how the change stated impacts the market ● B2a: Strategy 1 → Working → Ev1: Limitations/Trade-offs ● B2b: Strategy 2 → Working → Ev2: Limitations/Trade-offs ● Evaluate which strategy is most effective/suitable given the context of the question You should select one revenue strategy and one cost strategy.

Main Type 2: Discuss whether (strategy) is the best/most effective/most suitable strategy to (effect)
● Link the effect given to a firm objective – Profits, Revenue, Cost, Market Share, Growth ● B1: Strategy 1 → Working → Ev1: Limitations/Trade-offs ● B2: Strategy 2 → Working → Ev 2: Limitations/Trade-offs ● B3: Strategy 3 → Working → Ev 3: Limitations/Trade-offs (IF TIME PERMITS) ● Evaluate which strategy is most effective/suitable given the context of the question

Main Type 3: Discuss how (strategy) adopted by (firm) would affect <u>(effect)</u>.
Type 3a: Effect on Firms – Profits, Revenue, Cost, (Market Share, Growth) ● State that firms are profit maximising ● B1: Effects on Revenue based on Dd and |PED| changes → Link to Profit → Ev1: Condition for contradiction ● B2: Effects on Cost → Link to Profit → Ev2: Condition for contradiction ● Evaluate whether the effect on revenue outweighs the effect on cost; vice versa **Type 3b:** Effect on Society/Consumers – Allocative and Productive Efficiency, Variety, Consumer Welfare (Equity) ● B1: Effects on Allocative Efficiency (Society) ● B2: Effects on Income Equity (Society) ● B3: Effects on Productive Efficiency (Firms) ● B4: IEOS effects on equity (Consumers) ● B5: Effects on Innovation (Quality and Variety), linking to Dynamic Efficiency (Consumers) ● IN THIS ORDER. Bring in B2 and B3 only if government intervention is involved

Strategies

Strategies can be classified in two ways:

(1) Pricing and Non-pricing

- ***Pricing Strategies*** involve the firm changing the price it sells its product at.
  - *Lowering Prices, Increasing Prices, Third Degree Price Discrimination.*
- ***Non-pricing Strategies*** are all other strategies.
  - *Product Differentiation, Merger, Acquisition, Collusion, Cost Reducing, Diversification, Relocation and Cognitive Bias strategies*

(2) Revenue and Cost

- ***Revenue Strategies*** are strategies that cause shifts in the firm's average revenue (AR) curve.
  - *Product Differentiation, Merger, Acquisition, Collusion, Lowering Prices, Third Degree Price Discrimination, Cognitive Bias Strategies*
- ***Cost Strategies*** are strategies that cause changes in the average cost (AC) of production.
  - *Cost Reducing Strategies, Diversification, Relocation*

1. Product Differentiation

1.1 What is Product Differentiation

Product Differentiation is the process of creating differences, real or imaginary, between a firm's products and its rival firms' products. This is done so as to distinguish a firm's products from its rival's products.

Real Product Differentiation exists when there are actual differences between rival firms' products. ***Imaginary Product Differentiation*** exists when there are perceived differences between rival firms' products due to imperfect information. These forms of differentiation are not mutually exclusive.

1.2 Examples of Product Differentiation

(i) Product Development

Product Development refers to the improvement of an existing product or its presentation, or developing a new product to target a particular market segment. It is considered as real product differentiation.

(ii) Innovation

Innovation is the process of creating new ideas, products, methods or ways of doing things. This usually involves firms engaging in Research and Development (R&D). It may be considered to be a more extreme form of product development, and is therefore also considered as a form of real product differentiation.

Product Innovation refers to the development and introduction of new products or improved versions of existing products with significantly better features. ***Process Innovation*** refers to the improvement of production processes to improve efficiency. (Process innovation is elaborated on in *5. Cost Reducing Strategies*)

The extent to which firms engage in R&D depends on their ***ability to innovate*** and their ***willingness to innovate***. The ability to innovate is dependent on the firm's level of profit in the long run while the willingness to innovate is dependent on the level of competition faced. A firm may also become more willing to innovate with the advent of disruptive technologies, or due to rival firms' patents on products.

	Perfect Competition	Monopolistic Competition	Competitive Oligopoly	Monopoly
Ability	None	Low	High	High
Willingness	None	High	High	Low or High

Fig 1: the willingness and ability of firms in different markets to engage in innovation

In answering questions, it is important to analyse whether a firm will be willing and able to innovate. As shown in Fig 1 above, realistically, only firms in a competitive oligopoly will undoubtedly engage in innovation. Firms in MC may engage in less drastic forms of product development instead. Firms in PC will never engage in innovation.

A monopolist has the ability to engage in innovation. However, their dominant position in the market may reduce their willingness to innovate as the monopolist is already the most dominant firm and is not concerned about gaining market share and market power. However, the threat of potential entrants may incentivise monopolists to innovate since as a form of BTE in order to maintain their dominance in the market. Moreover, the invention of better products would increase tastes and preferences for the monopolist's product, increasing the demand and thus average revenue for the product. Consumers may also be interested in upgrading their product, thus allowing the monopolist to profit more.

(iii) Branding

Branding refers to the sign, logo, name or label of a firm or its product that distinguishes it from rival firms' and their products based on how it is perceived by consumers.

A firm's brand may include the quality of its products, defining characteristics of its products, its social and environmental responsibility efforts, etc.

(iv) Advertising

Advertising refers to a marketing strategy to promote the sale of a particular product.

Persuasive Advertising is used to subjectively influence consumers about the quality or desirability of a product. Persuasive advertising is frequently used to promote the branding of a company, and is a form of imaginary product differentiation.

Informative Advertising is used to inform consumers about the existence or availability of a product, prices of the product, tangible characteristics of the product, or the locations and conditions of sale. This is a form of real product differentiation.

Arguments for Advertising:

- Advertising can be an inexpensive means for providing information to consumers, allowing them to make rational decisions. In a dynamic economy where firms are constantly set up and new products are constantly produced, this is crucial.
- Advertising promotes competition by providing information about a variety of substitutes in consumption. Intensive advertising leads to the invention of new products, increasing the variety of products for consumers.
- If cost advantages from IEOS outweigh the cost disadvantages of advertising, consumers may be able to buy the product at a lower price.

Arguments against Advertising:

- Advertising persuades consumers to change their tastes and preferences in favour of the advertised product. Such advertising disseminates misleading information and tricks consumers into paying more for a product whose quality does not match the price paid, forgoing the purchase of a less advertised product which has a better quality for its price.
- Larger firms tend to have greater resources to hire top advertising consultants allowing for more successful advertising than smaller firms, thus large firms gain more market share. High advertising costs also acts as a barrier to entry, further intensifying the market power of incumbent firms.
- Advertising tends to be self-cancelling. When all firms advertise, there are effectively no shifts in any firm's demand curve since the effect of the advertisements cancel out. However, due to costs of advertising, the product is sold at a higher price, leading to lower consumer welfare. Moreover, scarce resources are poorly allocated to produce advertisements that have an almost net-zero effect.

1.3 How to Answer Exam Questions

***Note:** Section 1.3 is a rough guide which only applies to *type 1, 2 and 3a questions* for strategies involving Product Differentiation. You may refer to *4. Impact on Society* for how to answer *type 3b questions.*

Key Requirement 1: Revenue Advantages

- 1a: Shifts consumers' tastes and preferences towards the firm's product (contextualise here!), thus increasing the demand for it, increasing the firm's average revenue. This is illustrated by a rightward shift of the AR curve from AR_0 to AR_1.
- 1b: Makes the firm's product less substitutable due to the perceived or real differences between rival firms' products (contextualise here!), thus reducing the closeness of substitutes in consumption, making demand for the product less price elastic, $|PED| < 1$, illustrated by AR_1 being steeper than AR_0.
- Assuming constant costs, the firm's supernormal profits will increase from area P_0ABC_0 to a bigger area P_1DEC_1 as illustrated in the figure above. (If in MC, you must state that the change in profits is from normal profits to supernormal profits.)
- Ev1: Why revenue might not increase by such a large proportion

Key Requirement 2a: Cost Advantages

- IEOS due to increased production and output of the product (contextualise here!).
- ***Note:** Usually we assume that these strategies have Cost Disadvantages. Only write this if the question requires cost advantages ('how this strategy increases profits' or 'how this strategy reduces costs')

Key Requirement 2b: Cost Disadvantages

- Increases fixed costs of production (contextualise here!) and variable costs of production (contextualise here!)
- This would result in an upward shift of both the SRAC (no fixed costs in the long run) and MC curves from AC_0 to AC_1 and MC_0 to MC_1 respectively, causing the firm to make subnormal profit if the increase in costs is very significant, c.p. (remember you just said profits will increase if revenue increases) As a result, the firm will no longer make supernormal/normal profits of area P_0ABC_0 and will instead make subnormal profits of area P_1DEC_1.
- Ev2: Why costs might not increase significantly

Key Requirement 3: Barriers to Entry (OPTIONAL)

- BTE because of the costly nature of implementing such strategies. It forces newly-entering firms to increase their spending on such costs in order to compete on an equal basis with the larger firms. Newly-entering firms are usually small and unable to do this as they produce at a much lower output which is further from the MES, thus limiting their market share in the industry.

Summative Conclusion: Final Effect on Profit

- State that the strategy employed will increase both revenue and costs
- Weigh the increase in revenue against the Increase in costs based on contextual information, then deduce the change in profits. ("from supernormal profits to greater supernormal profits", etc. **not** "profits will increase/decrease")

2. Mergers, Acquisitions and Collusion

2.1 What are Merger and Acquisitions (M&A)

A ***Merger*** is a form of external growth involving the amalgamation of two or more firms to form an entirely new enterprise. An ***Acquisition*** is a form of external growth whereby one (usually larger) firm buys over another firm, thus taking over the assets and market share of the acquired firm. The acquired firm ceases to exist. While it is important to distinguish between mergers and acquisitions, they are identical in terms of answering the different question types. Sometimes the term 'merger' is used as a collective term to mean M&A.

Often, the *Competition and Consumer Commission of Singapore (CCCS)* assesses the M&A and decides whether or not to allow it based on principles of competitiveness. If this name pops up in the exam, look out for type 3b question points.

(i) Horizontal Merger

Horizontal Merger occurs when two or more firms in the same industry and in the same stage of production merge. Horizontal mergers can reduce unanticipated behaviour by rivals and reduce costs of advertising due to reduced intensity of advertising.

(ii) Vertical Merger

Vertical Merger occurs when two or more firms in the same industry but in different stages of production merge.

Forward Integration occurs when a firm merges with one or more firms in a later stage of production than itself. It allows firms to control its distribution channels where its products are sold.

Backward integration occurs when a firm merges with one or more firms in an earlier stage of production than itself. This allows firms to secure supplies from its upstream producers, reducing uncertainty in the supply chain.

(iii) Conglomerate Merger

Conglomerate Merger occurs when two or more firms in different industries merge. The merged firm is known as a conglomerate.

A ***Conglomerate*** may have operations in many different industries. The objective of this is risk diversification. (Risk-bearing economies)

2.2 What is Collusion

Collusion occurs when firms agree to limit competition between themselves. This is most common in Oligopolies, which are then referred to as ***Collusive Oligopolies***. Firms in a collusive oligopoly may agree on prices, output, market share, advertising expenditure, etc.

Firms may choose to collude because in the absence of price competition, the industry makes greater profits, and thus each firm makes greater profits. Collusion also reduces the likelihood of competitive price cutting and retaliatory advertising, which would reduce total industry profits.

(i) Formal Collusion

Cartels are formed when there is a formal and contractual collusive agreement between firms. This is also known as ***Formal Collusion*** or ***Explicit Collusion***.

A cartel may decide to divide the market among themselves based on geographical territories or market segments to each member and agree not to compete with each other on these terms. It essentially acts as a monopoly as the firms agree to sell at an output quantity where their combined marginal revenue equals the combined marginal cost, thus maximising the profit for the industry. This behaviour is called ***Price Fixing***.

(ii) Tacit Collusion

Tacit Collusion or ***Informal Collusion*** occurs when firms follow the pricing behaviour of a dominant firm. This behaviour is called ***Informal Price Fixing***.

Dominant price leadership may arise when there is one dominant firm in the industry (more than 50% market share). Due to the dominant firm's immense size and efficiency, smaller firms will simply follow its pricing policy as they will not be able to undercut the prices due to substantial IEOS enjoyed by the larger firm. Any price increases will be followed by the smaller firms as they face higher average costs due to their lower output. Any price decreases will also be followed as they risk losing their already minimal market share and thus may make subnormal profits.

(iii) Ease of Collusion

The higher the **Concentration** of a market, the easier it is to collude. When the market is dominated by a few firms, it is easier for the firms to collude as compared to one where there are a large number of firms.

The presence of a **clear market leader** makes it easier for smaller firms to follow the pricing and strategies of the market leader. (*Tacit Collusion*)

The lower the level of **Product Differentiation**, the easier it is to collude. When the market sells homogeneous products, setting different prices can lead to losing significant market share. If firms sell differentiated products, demand for the firm's products is more price inelastic due to reduced substitutability, allowing firms to sell at different prices and lose relatively less market share.

2.3 How to Answer Exam Questions

***Note:** Section 2.3 is a rough guide which only applies to *type 1, 2 and 3a questions* for strategies involving Mergers, Acquisition and Collusion. You may refer to *4. Impact on Society* for how to answer *type 3b questions.*

Key Requirement 1: Revenue Advantage

- 1a: Increases the number of buyers of the combined firm (contextualise here!), thus increasing the demand for it, increasing the firm's average revenue. This is illustrated by a rightward shift of the AR curve from AR_0 to AR_1.
- 1b: Makes the firm's product less substitutable due to reduced availability of substitutes as there are reduced rival firms (contextualise here!), making demand for the product less price elastic, |PED| < 1, illustrated by AR_1 being steeper than AR_0. (usually not applicable for vertical and conglomerate mergers. Use a point from KR3 below.)
- Assuming constant costs, the firm's supernormal profits will increase from area P_0ABC_0 to a bigger area P_1DEC_1 as illustrated in the figure above. (If in MC, you must state that the change in profits is from normal profits to supernormal profits.)
- Ev1: Why revenue might not increase by such a large proportion
- Note that sometimes a question might require you to address possible revenue disadvantages.

Key Requirement 2: Cost Advantages

- IEOS due to increased production and output of the product (contextualise here!).
- Ev2: IDOS (contextualise here!)

Key Requirement 3: Other Advantages

- Reduce uncertainty (contextualise here!)
- Diversification (contextualise here!) allows firms to gain new sources of revenue and allows it to spread its risks as losses incurred for one product can be offset by another. (If this was talked about in KR2 or in the previous point of KR3, do not repeat it)
- Firms may gain access to special tangible resources (patents, physical assets) and intangible resources (brands). This may allow the firm to (link to a revenue or cost advantage)
- ***Note**: It is not advised to write this paragraph. This is additional content just in case the question asks only for revenue advantages or only for cost advantages.

Summative Conclusion: Final Effect on Profit

- Argue from contextual information in what situation the strategy would achieve these objectives, and in what situation it would not. Weighing the probability of either of these situations, explain the change in profits. (“from supernormal profits to greater supernormal profits”, etc. **not** “profits will increase/decrease”)

3. Lowering Prices

3.1 Examples of Lowering Prices

(i) Predatory Pricing/Limit Pricing

Limit Pricing occurs when dominant firms set their prices below the short run average cost of new entrants such that new firms will find it unprofitable to enter the market. This thus serves as a barrier to entry since it would be very difficult for new firms to enter the market.

Predatory Pricing occurs when dominant firms set their prices below the long run average cost of smaller firms to force smaller firms to shut down. Firms may also calculate that they can sustain subnormal profits longer than rival firms and thus will carry out predatory pricing.

Either of these strategies result in lower profits if continuously carried out as firms set their prices significantly below the profit maximising price. Therefore, this strategy may only be employed in the short term as if the firm continues to lower its prices, it will eventually **break even** and make **significantly less profit**. (contextualise here!)

(ii) Price War

Price Wars occur when firms lower their prices in an attempt to gain market share and thus gain market power. If firms calculate that they can sustain subnormal profits for longer than rival firms due to greater resources, they may initiate a price war.

Price wars do not occur in Monopolies or in Perfect Competition. This is because there is no incentive for firms to decrease their price in these markets. In a Competitive

Oligopoly, price wars are short-lived due to the phenomenon of price rigidity. Instead, price wars are most common in Monopolistic Competition.

3.2 How to Answer Exam Questions

***Note:** Section 3.2 is a rough guide which only applies to *type 1, 2 and 3a questions* for strategies involving Lowering Prices. You may refer to *4. Impact on Society* for how to answer *type 3b questions.*

Key Requirement 1: Revenue Advantages

- Larger firms have greater market share and can set their prices below the average cost of rival firms/newly-entering firms. This is due to the cost advantages enjoyed by the dominant firm via IEOS which is not enjoyed by the new firms. These firms will make subnormal profit if they sell at this lowered price in order to compete on an equal basis with the larger firms.
- This results in them having to shut down/being unable to enter, allowing the larger firms to gain/retain market share and reduce the available substitutes for their product, increasing demand for the firm's product and making demand more price inelastic; |PED| < 1.

Key Requirement 2: Cost Advantages

- Same points as *Mergers, Acquisitions and Collusion*

Summative Conclusion: Final Effect on Profit

- Argue from contextual information in what situation the strategy would achieve these objectives, and in what situation it would not. Weighing the probability of either of these situations, explain the change in profits. ("from supernormal profits to greater supernormal profits", etc. **not** "profits will increase/decrease")

4. Impact on Society

***Note:** This Section answers *Type 3b* Questions for only strategies related to *Product Differentiation, Mergers, Acquisitions, Collusion* and *Lowering Prices.*

***Note:** Key Requirement 2 and Key Requirement 3 are optional points that should only be brought in when discussing government intervention.

Key Requirement 1: Effects on Allocative Efficiency

- State that the condition for allocative efficiency to be achieved is market price P = MC, at Q_{PC} where AR curve cuts MC curve.
- Using the PC market as a proxy for lower market power (I have no idea what this means just write it), firms with lower competition would charge at P_{PC} and Q_{PC}, at the allocatively efficient output level. However, with increasing market power, firms have greater price-setting ability, resulting in the firms setting higher prices and restricting output, charging at the profit-maximising output level of Q_0 and P_0, thus straying further away from allocative efficiency as P>>MC, illustrated by the deadweight loss AE_oE_1. Thus, the market does not produce at an output level that allows society to attain the greatest level of satisfaction.
- (Can also explain using greater DWL but not advisable)

Key Requirement 2: Effects on Income Equity

- Consumers are charged a higher price and supernormal profits continue to be made in the long run in these industries due to high barriers to entry created by advertisements (use BTE point)
- Monopolist's profits are not redistributed because corporate stock ownership is usually concentrated in the hands of upper income groups and redistributed to the top management of these firms in forms of bonuses, so producers gain at the expense of consumers.
- (If the good sold is a necessity), much more inaccessible to the lower-income which will thus be more adversely affected.

Key Requirement 3: Effects on Productive Efficiency

- Productive Efficiency is achieved when firms produce a given output with the least cost combination of input by producing on the LRAC
- Firms may suffer from X-inefficiency when they become lax with their cost controls by over-remunerating their staff or spending excessively on luxurious offices.
- Higher average cost of C_1 leading to increase in total cost from area C_0AQ_00 to C_1BQ_00.

Key Requirement 4: Effects on Equity due to IEOS

- IEOS (contextualise here!) may be reaped due to the larger scale of operations which may be passed down as cost savings to consumers, increasing consumer welfare due to lower prices.

Key Requirement 5: Effects on Innovation (Quality and Variety), linking to Dynamic Efficiency

- Dynamic Efficiency is achieved when firms are technologically progressive and reduce the long run average cost of production to meet consumers' changing wants and needs
- With increased supernormal profits, firms are able to invest in R&D and innovation, leading to greater dynamic efficiency and higher welfare to society (contextualise here!) due to improved product quality

OR

- By providing information about lesser-known products, smaller firms gain market share, decreasing monopoly power of dominant firms, reducing prices and increasing output. A greater variety of products become available to consumers. Advertisement of varied products incentivises rival firms to create new products to compete on a similar basis, increasing variety further.

5. Cost Reducing Strategies

5.1 Examples of Cost Reducing Strategies

(i) Joint Ventures and Alliances

Joint Ventures occur when firms join together to pursue a common objective but remain separate in legal terms. This overlaps with Ideas of *External Economies of Scale* via *Economies of Disintegration*.

(ii) Process Innovation

Process Innovation refers to the improvement of production processes to improve efficiency. Improvements in efficiency help the firm to lower its average costs as more output is produced per unit time and resources.

Dynamic Efficiency is achieved when firms are technologically progressive in order to reduce the average cost of production and to meet the changing needs and wants of consumers over time.
Dynamic efficiency is achieved only in the long term and is thus illustrated by a downward shift of the LRAC. Dynamic efficiency may be boosted by R&D and a faster pace of innovation and invention, investment in the human capital of the workforce leading to gains in productivity, greater competition in markets and the transfer of ideas across countries. These factors overlap with ideas of *External Economies of Scale* via *Economies of Concentration* and *Economies of Information*.

Once again, in answering questions, it is important to analyse whether a firm will be willing and able to innovate. Refer to this analysis in ***1.2 (ii) Innovation***.

(i) Diversification

Diversification is a growth strategy that involves entering into new markets or targeting different market segments so as to spread risks. It is the basic concept behind *Risk-bearing Economies*.

(iii) Relocation

Relocation is the action of transferring a firm's place of operation from one physical location to another. This allows the firm to enjoy *External Economies of Scale*.

5.2 How to Answer Exam Questions

Key Requirement 1: Process Innovation and Joint Ventures and Alliances

- Define dynamic efficiency ⇒ Explain that the firm is able to engage in high/low levels of R&D and Innovation as it makes long run supernormal profits and has the incentive to invest due to (level of competition / presence of disruptive technology / threat of new entrants)
- Process Innovation (Contextualise here!) improves efficiency and productivity so that more products can be sold with the same costs, hence decreasing average and marginal costs.
- For Joint Ventures and Alliances, use Economies of Disintegration to elaborate with context.

- For Diversification, use *Risk-bearing Economies* to elaborate with context.
- For Relocation, use any External *Economies of Scale* concepts to elaborate with context.

Key Requirement 2: Effect on Producers

- This may be illustrated by the downward shift of the firm's MC from MC_0 to MC_1 and LRAC from AC_0 to AC_1. It is beneficial because the lowering of the MC and LRAC implies that more goods can now be produced from any given amount of resources. The lowered costs will increase the firm's supernormal profits from area P_0WXC_0 to area P_1VYC_1, ceteris paribus.

Key Requirement 3: Effects on Consumers (Only for Type 3b)

- EEOS (contextualise here!) may be reaped due to investment in more cost-efficient production methods or sharing costs with other firms.
- This may be illustrated by the downward shift of the firm's MC from MC_0 to MC_1 and LRAC from AC_0 to AC_1. Costs are lowered from C_0 to C_1 and passed down to consumers in terms of a fall in prices from P_0 to P_1, increasing consumer welfare.

6. Third Degree Price Discrimination

6.1 What is Third Degree Price Discrimination

Third Degree Price Discrimination refers to selling the same product to different buyers at different prices due to differences unrelated to cost. Instead, these differences may be due to time, tastes and preferences, location, income, etc.

***Note**: If price differences reflect differences in fixed or variable costs, it does not constitute third degree price discrimination. (e.g. portion sizes, locations with different rent, different distances travelled, etc.)

6.2 How to Answer Exam Questions

Main Type 4a: Explain why (3DPD strategy) may be considered as 3DPD. [2m]

- "(Product) is sold to group 1 at a higher/lower price than to group 2 not based on differences in costs [1m] as the firm incurs the same (contextualised fixed or variable cost) regardless of whether it is producing for group 1 or group 2. [1m]"

Main Type 4b: Explain why (3DPD strategy) may be considered as 3DPD. [3/4m]

- "(Product) is sold to group 1 at a higher/lower price than to group 2 not based on differences in costs as the firm incurs the same (contextualised fixed or variable cost) regardless of whether it is producing for group 1 or group 2." [1m]
- The firm operates in an MC/Oli/Mn so it has significant market power and must be a price setter. [1m]
- Explain why group 1 has lower PED, then explain why group 2 has higher PED (contextualise here!) [1m]
- Explain why the firm is able to prevent resale (contextualise here!) [1m]

Main Type 1 and Main Type 2 Questions

- Explain why group 1 has lower PED ⇒ Explain that selling at higher prices increases revenue. Explain why group 2 has higher PED ⇒ Explain that selling at lower prices increases revenue.
- If revenue increases for both groups, then revenue overall must have increased. Profits increase assuming constant costs.
- It also allows for production that is otherwise impossible. A firm may potentially make subnormal profits if it does not price discriminate, but make supernormal profits if it does.
- ***Note:** Type 3a questions for 3DPD are not addressed in these notes because the content addressed in our syllabus is not enough to answer such questions.

Main Type 3b Questions

Key Requirement 1: Benefits to society due to improved equity

- ***Cross subsidisation*** is the practice of charging higher prices to one type of consumer to artificially lower prices for another group. This improves equity since those who were unable to afford a good, especially an essential good, are now much more able to purchase that good. On the other hand, high-income consumers pay more. (Consumer)
- It also allows for production that is otherwise impossible. A firm may potentially make subnormal profits if it does not price discriminate, but make supernormal profits if it does. Consumer welfare thus also increases as they are able to

access a service that would otherwise not be provided. (Producer / Consumer / Society)

Key Requirement 2: Costs to society due to reduced equity

- The higher prices charged to consumers with lower PED results in a decrease in consumer welfare, as consumer income is unfairly redistributed to capitalist firms, resulting in higher monopoly profits at the expense of consumers.

Summative Conclusion

- Use context to argue whether there will be a net cost or net benefit to society.

7. Cognitive Biases

7.1 What are Cognitive Biases

Cognitive Biases are tendencies in human thinking that result in irrational consumer behaviour. In other words, consumers fail to maximise their own satisfaction and will make suboptimal choices, because humans are stupid.

7.2 Examples of Cognitive Biases

(i) Sunk Cost Fallacy

Sunk Cost Fallacy occurs when a consumer persists in the consumption of a product if he has already invested a large amount of resources into it, even if the marginal cost of persisting exceeds the marginal benefit. This is in an attempt to make the most of his expenditure. This is irrational because further consumption will result in a loss in overall satisfaction since the additional cost of consumption exceeds the additional benefit. Thus, a consumer will not be maximising his satisfaction.

(1) This allows firms to upsell by selling to the customer add-ons which are relatively cheap compared to the large expenditure on the main product already purchased, allowing the firm to profit more. (e.g. bundles, extended service warranties)

(2) In package deals, consumers pay a lump sum for a membership for cheaper prices, but purchase the goods or service more frequently, allowing the firm to profit more. The consumer's greater purchasing frequency also means that he would purchase another

package deal sooner, leading to greater expenditure on a good or service, allowing the firm to profit more.

(3) The sunk cost fallacy also prevents consumers from patronising another firm as they feel like they should make full use of the deal before buying from a new firm. Thus, it increases consumer loyalty and makes demand more inelastic, allowing the firm to set higher prices resulting in a less than proportionate fall in quantity demanded, resulting in an increase in revenue. Profits will increase assuming constant costs.

(ii) Loss Aversion

Loss Aversion is the thinking that the pain of losing something is greater than the satisfaction of gaining that same thing. This is illogical because the valuation of the same product should not change if its tangible benefits remain the same. Therefore the loss of tangible benefits should not outweigh the gain of such tangible benefits

(1) Firms may offer free trial periods to entice consumers to build a strong dependence on a product, then have the customer pay at a very high price. The consumer will willingly spend this sum as their attachment to the product makes them perceive the loss of the product to be worse than the high expenditure to keep it.

(2) Firms may also offer ‘limited time only’ coupons to entice customers to purchase products even though they do not need it currently because of the possible regret of not making use of such a deal.

(iii) Salience Bias

Salience Bias occurs when humans prioritise more prominent information and ignore less prominent information. This is illogical because more prominent information need not be more important information and vice versa. There is generally no direct relationship between prominence and importance

(1) Firms may make use of recent news to promote their item e.g. insurance is more attractive after hearing about many serious injuries in car crashes

(2) Firms may make use of large and more striking print on more profitable items to attract attention and use less noticeable print on less profitable items.