3. Over the last two years, the food and beverage (F&B) industry in Singapore was among the hardest hit sectors amidst the poor business climate and manpower shortages.

(a) Explain the determinants of a rational F&B owner's decision on whether to increase the number of outlets in Singapore. [10]

(b) Discuss the extent to which firms in highly competitive industries are more vulnerable to closure than firms in less competitive industries during a recession. [15]

Question analysis	
Command Word	"Explain" – requires student to explain the different factors that guide decision making for a firm i.e benefits, costs, constraints, other information about market
Context	F and B
Concept	Decision-making framework, firms and decisions

<u>Introduction:</u>
A rational F&B owner will consider his/her self-interest in the decision, which will be based on the consideration of only the private cost and private benefit. The objective of the owner is to maximize and increase profits.

The factors that need to be considered are the additional benefit and additional costs of each additional outlet opened. An assumption in this answer is that the F&B owner has the financial resources to open additional outlets in Singapore.

<u>Body Paragraph/Requirement 1: Explain the marginal benefits in increasing the number of outlets in Singapore</u>

The additional benefits that an F&B owner would need to consider is the additional revenue can be earned from opening a new outlet in a new location. This additional revenue would be from the number of dishes that are sold in the new outlet. Some factors that would influence how much the additional revenue is are the number of potential patrons in the area. In areas which are densely populated, the potential to earn revenue is also higher. One thing to consider is also the economic climate. Due to the pandemic, incomes of citizens have fallen and may result in a fall in demand for F&B dining in general. Nonetheless, this depends on how income elastic the F&B outlet is. If the F&B outlet is income inelastic or negatively income elastic, the potential revenue earned could still increase.

<u>Body Paragraph/Requirement 2: Explain the costs (explicit and implicit costs) in increasing the number of outlets in Singapore</u>

The costs that the F&B owner needs to consider are the explicit and implicit costs. Explicit costs in the F&B market are such as the costs of ingredients, labour costs and infrastructure of the F&B outlet. Due to the supply disruptions and manpower constraints due to the pandemic and other economic challenges, the explicit costs would have been considered to increase. Implicit costs refer to the opportunity costs, which is the benefit of the next alternative forgone. As an F&B business owner, these funds to open an additional outlet could have been used for marketing its current outlet more aggressively to attract more customers to the current outlet. The opportunity costs in such an example could be the potential revenue that could have been earned due to the increase in marketing strategies.

Final analysis on whether to open an additional outlet:

The 2 main factors that the F&B owner needs to consider are the marginal revenue and the marginal costs. Profit can still increase by opening an additional outlet if the marginal revenue outweighs the marginal costs. The F&B owner will maximize his/her profit with the total number of outlets where marginal revenue = marginal costs.

Knowledge, Application, Understanding, Analysis		
L3	▪ Accurate and clear analysis of whether to open an additional outlet weighing the o Marginal revenue o Marginal costs ▪ Answer provides relevant examples of the F&B industry	**8 – 10**
L2	▪ Undeveloped or some inaccuracies of whether to open an additional outlet weighing the o Marginal revenue o Marginal costs Or ▪ Answer only explains one of the above requirements ▪ Answer provides some examples of the F&B industry	**5 - 7**
L1	▪ Inaccurate and minimal analysis or descriptive answer ▪ Answer is largely irrelevant	**1 – 4**

(b) Discuss the extent to which firms in highly competitive industries are more vulnerable to closure than firms in less competitive industries during a recession. [15]

Question analysis	
Command Word	"Discuss" – High level of market competition' suggests the market structure of monopolistic competition while the 'less competitive industries' refer to oligopolistic market. Students need to bear in mind the typical characteristics of firms in these markets, students will need to examine/ compare their vulnerability to closure during recession.
Context	Recession faced by oligopolistic vs monopolistic firms
Concept	Shut-down condition, factors determining survivability of firms

<u>Introduction: Identifying the different market structures and briefly explain how a recession may lead to closure</u>

During a recession, the demand for goods and services in the economy would decrease in general due to falling incomes. This may impact the revenue earned for firms and lead to a situation of subnormal profit.

When the demand for a firm's goods or services decrease, the average revenue earned would decrease. Assuming costs remains the same, firms would have to reassess if staying in the market is the optimal decision. If the firm is earning a subnormal profit, the firm would need to assess if it fulfils the shut-down condition in the SR and LR. If AR is less than the AVC the firm should shut down. If the AR is at least more than the AVC in the SR, it can minimize losses by staying in the market.

The characteristics of firms faced by high level of competition vs low levels of competition influence how likely they are to fulfil the shut-down condition. However, there are also other possible factors such as the type of good sold that need to be considered.

<u>Body paragraph/Requirement 1: Firms with higher levels competition are more likely to shut-down during a recession</u>

Firms faced by high level of competition are typically in monopolistic competition (MC). There are many small firms with weak market power as each firm contributes a very small proportion of industry's output/sales. Examples are markets in retailing and services. The size of firms tends to be small. They sell slightly differentiated goods and production or business is mainly labour intensive in nature. The weak market power is represented by a demand which is price elastic for their products. As MC firms have a low price setting, a small market share and a long run profit which is normal, they are more likely to be in a situation of a subnormal profit when demand decreases during a recession.

On the other hand, firms with less competitive markets are in oligopolistic market. There are only a few big firms, and each firm contributes a large proportion of the overall industry's output. Firms are typically capital intensive and it is because of the need for capital and technology intensity in production that leads to the growth of large firms in this industry. Each firm tends to have strong market power but they are interdependent in their business decisions due to the presence of the few of them only. Manufacturing and telecommunication industries are examples of oligopolistic markets. As oligopolies have a high price setting ability due to the high barriers to entry, a large market share and a long-run profit which is supernormal, they may still be earning a supernormal profit when demand decreases during a recession. Even if the drop in demand was significant, there are higher chances that the AR outweighs the AVC, leaving it less vulnerable to closure compared to an MC firm.

Evaluation:

While the characteristics of a firm in a highly competitive industries influence how likely they are to close down during a recession, the extent of their vulnerability may vary across different firms. Some MC firms may have successfully created niche markets or adjust their strategies accordingly to maintain profitability. Oligopolies may have less flexibility to adjust quickly to changing demands due to bureaucratic structures of a large firm.

That being said, oligopolistic firms tend to have large reserves due to extensive supernormal profits. These firms are more likely to absorb losses longer during a recession and they can also utilize reserves to embark on more aggressive marketing and longer run innovation initiatives to stem declining demand as opposed to MC firms.

Body paragraph/Requirement 2: Vulnerability is also dependent on nature of income elasticity of demand for good/service, not necessarily the extent of competition in market

Income elasticity of demand refers to the extent of change in demand arising from a change in income. With positive income elasticity, demand for goods will fall with falling income during recession.

There are monopolistically competitive markets in which firms are resilient during recession due to low income elasticity of demand. Hawker stall business in Singapore is one such example. Their food prices are relatively much lower than restaurants and they are located in high-density residential areas. While their revenue may fall during recession, it is likely to be insignificant due to low pricing and necessity in meal consumption of population. Moreover, some of these firms may produce goods or services which have a negative income elasticity, where the demand for goods will increase with falling income during recession. These could be sellers of inferior products such as unbranded t-shirts.

Conclusion:

In conclusion, firms operating in highly competitive industries are more prone to closing down during a recession because the likelihood of earning a subnormal profit is much higher due to having a small market share and normal profits to begin with. However, how vulnerable any firm is to shut-down also depends on how flexible they are to come out with new strategies and the amount of resources to do so. Other factors that need to be considered are also the nature of good that is being sold, brand loyalty and how the firm has positioned it in a time of recession making use of income elasticity of demand.

Knowledge, Application, Understanding, Analysis	
Level	**Description**

L3 (8 – 10m)	• Breadth
	  ○ Explains **two factors** why either firms in more competitive industries or less competitive industries are more likely to close down during a recession
	
	• Depth
	  ○ Rigorous and relevant economic analysis used to explain how characteristics of different market structures increase the vulnerability to shut down
	  ○ Rigorous and relevant economic analysis used to explain how other factors such as type of good sold increase the vulnerability to shut down
	  ○ Relevant examples to substantiate

L2 (5 – 7m)	• Lacking any L3 criterions.
L1 (1 – 4m)	• Largely irrelevant response. • Largely descriptive response with non-existent or minimal or application of economic concepts or theories. • Serious and pervasive conceptual errors.

Level	**Description**
E3 (4 – 5m)	For an answer that builds on appropriate analysis to evaluate critically and arrives at **well-reasoned judgements*** and decisions using criteria. • Strong evaluative statements about the extent of firms in high vs low competition are more likely to shut down • Strong concluding paragraph • Strong reasoning to justify the judgement made (including the use of criteria) * in the context of this question, judgement made should be whether firms in more competitive industries are likely to shut down during recession as compared to those in less competitive industries

E2 (2 – 3m)	• Provides an opinion accompanied with partial substantiation that:
	  ○ May not be entirely convincing.
	  ○ Seems overly reliant on assumptions that may not hold.
	  ○ Lacks relevance to the context of the question.
	• Evaluates at least one of the points covered in the body or provides some insightful opinion(s) but the overall stand in unclear.

E1 (1m)	• Unsupported evaluative statement(s). • Or unsubstantiated / generic conclusion • Or supported with very weak/incorrect/unrealistic/illogical reasoning (therefore making the judgement unconvincing)