# ANGLO-CHINESE JUNIOR COLLEGE

## JC1 Economics

| H2 | FIRMS AND DECISIONS<br>Tutorial Worksheet 4 |
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## Section A: Problem Based Learning

**Market Research Project**

For this assignment, you will be working into groups (your tutor will assign).

As a group, conduct market research on one of the following markets (one market per group):
- Bubble tea in Singapore
- Fast food in Singapore
- Supermarkets in Singapore
- Telcos in Singapore
- Donuts in Singapore
- OR any other market your group is interested in (check with your tutor for approval).

You will need to research on the following for your chosen/assigned market:

**Part 1: Characteristics of the Market**
- Approximate number of firms in the industry
- Top 3 firms in the industry (by market share, size, or any other measure)
- Barriers to entry: what do you think a new firm would need to join the industry?
- Comparison of product across different firms: how similar or different are the products?

**Part 2: Behaviour of Firms in the Market:**
- Approximate price of a similar product for 5 different brands (unless there are fewer than 5 brands):
- Strategies used by the firms to increase profits, where profit = revenue - cost (include relevant images if possible)

To conduct your research, you can use online tools such as search engines or Chat GPT. You can also do field research and head down to the retail outlets.

**Deliverable:**
- A **5 minute presentation** on your findings in class.
- You should use a visual aid for your presentation, such as Google Slides or Canva.
- You can choose to do either an oral or video presentation.

# Section B: Discussion Questions

**Question 1: Delivery sales drive up revenue of eateries**

Mr Arif Salahuddin, founder of Michelin-rated Bismillah Biryani Restaurant, teamed up with food-delivery platforms such as Deliveroo and Foodpanda last September. His revenue is up 17 per cent. Within minutes of turning on the Deliveroo app last September, the restaurant had multiple orders.

The boost to his restaurant's sales prompted him to employ more staff and invest in larger ovens and machinery. This allowed him to delegate his staff to do specialised work and the use of machinery also increased their productivity. But Mr Salahuddin said that while 15 per cent to 20 per cent of revenue now comes from delivery, they are still hesitant to rely on it as delivery sales can fluctuate daily, based on factors such as the number of riders and weather.

The commissions charged by food delivery partners can range from 20 per cent to 50 per cent, depending on sales and the number of outlets. Mr Andrei Soen, founder of Park Bench Deli, acknowledged that the commissions lower profit margins, but said that as delivery makes up a fraction of his sales, his margins are not significantly affected. He added that the delivery platforms have strong marketing campaigns that reach out to customers, and provide data analytics, which has been useful as he is deciding the location of his next outlet.

Adapted from *The Straits Times*, 11 April 2017

a. With reference to the extract, explain the difference between variable cost and fixed cost to the restaurant owner.

b. Explain the possible types of cost saving that a restaurant owner could enjoy.

c. Consider whether a restaurant owner should engage a food delivery company or set up its own delivery service to increase its sales.

**Question 2: Internal Economies of Scale & Shut-down condition**
*(Adapted from 2021 A-Levels Case Question 1)*

**Extract 1: Barramundi Asia rolls out ambitious growth plan**

Singapore-based Barramundi Asia has big plans for growth. The company farms the barramundi fish in deep seawater off Singapore's southern isles, as well as around the Islands of the Kimberley off northern Australia and a new farm set up in Brunei's waters. The company is working to scale annual production up to 50000 tonnes of barramundi by 2030. Barramundi Asia uses hi-tech automated farming processes, harvesting when its fish get to four to five kilograms in size.

'The overwhelming growth in fish farming for the future is still here in Asia,' said the chief executive officer (CEO). 'Singapore is an international financial hub, and has proximity to our key business activities in Brunei and Australia as well as our local research and development sites.'

Currently, the company's production is around 4000 tonnes, with around 700 tonnes produced in Singapore and 3000 tonnes produced in Australia. It makes around SG$20 million in annual revenue not enough to make it profitable yet. But that is due to the company's aggressive growth plans for the next ten years. By expanding its operations across its three farming sites, Barramundi Asia says it is on track to produce more than 11 000 tonnes of barramundi fish by 2023. And that could grow by even more if the company adds more new farms.

Because of the geographic distance between its farming operations, Barramundi Asia has found it makes both logistical and financial sense to own and operate its entire supply chain: breeding and processing the fish, managing the farms, as well as running a sales and marketing operation.

Barramundi Asia says it can produce its own vaccines and has methods of farming barramundi fish from small fry to fully-grown fish, as well as a sophisticated sales and marketing operation with online shops, home delivery and a strong brand. It also now has genetics expertise, after starting to work with Temasek Life Sciences, a non-profit organisation specialising in fish genomics and breeding programmes.

'Can we get to 50 000 tonnes? I believe so. It's not going to be easy but we're quite confident,' said the CEO. 'I do believe we have the capabilities in place to deliver on our expansion plans. I'm very high in confidence we can make it happen.'

Source: SeafoodSource, 28 January 2020

a. Explain how Barramundi Asia's plan to increase its scale of fish production
   i. can result in cost-savings
   ii. affects the firm's price setting ability

**Extract 2: Shrinking prospects for shrimp farmers as India faces a global slump**

The cascading effects of the Covid-19 (coronavirus) pandemic in 2020 have had a striking impact on shrimp trade in India - farmers of the shellfish have been losing their livelihoods, and experts are expecting more disruption to come.

Around 80 per cent of all farmers in the village of Baguran Jalpai, which is close to the Bay of Bengal, have switched to shrimp farming recently because of relatively high revenues. But fears of losing all their hard-earned income at a single stroke have been growing with the spread of Covid-19.

Sunil Mahata, a shrimp farmer who lives in the village, expects heavy losses if the situation doesn't change in the next few months. 'I invested around US$6500 for 200 000 tiny shrimp just ten days before India's lockdown was announced. I have to spend money on feeding the shrimp and also on medicines for my family.'

An exporter said 'India's shrimp production will not be the same as before, as farmers have become reluctant to invest in shrimp because of the situation with the pandemic - many will leave the market. The shrimps farmed in India are mostly used in hotels and restaurants across the globe, and the whole hospitality and dining sector might take a hit if the pandemic keeps customers away.'

Source: The Fish Site, 23 April 2020

With reference to extract above,

b. Explain how the small-scale shrimp farmers' revenue has been affected.

c. Explain the shut-down condition faced by firms in the short run.

d. Explain why they took the decision to shut down production in the short run and leave the market in 2020.

**Question 3: Collusion and impacts on consumers**

**Extract 1: Electronic component firms fined for collusion**

Panasonic, ELNA Electronics, Nichicon Singapore, Rubycon Singapore and Singapore Chemi-con (SCC) which are four of the biggest manufacturers of electrical components here have been fined a record S$19.5m in total by the Competition Commission of Singapore (CCS), after they were found to have colluded with a fifth company — Panasonic Industrial Devices (Singapore and Malaysia) — to fix prices and collectively reject requests from customers for price reductions.

Together, the companies cover two thirds of the Singapore market for aluminium electrolytic capacitors (AECs), which are commonly found in computers and household appliances such as washing machines, televisions and refrigerators.

CCS said that the long-running cartel sheltered the parties' profitability and market shares from competition, to the detriment of their customers. Without the agreements, the firms would have been under greater competitive pressure. This means that an individual AEC supplier may not have been able to sustain a price increase without losing market share to its competitors as its customers could switch to another AEC supplier. Hence, without the cartel activity, the parties would have had to draw customers with better prices or quality of products."

CCS further states that cartels among suppliers cause serious harm to competition in the market, leaving businesses and end-consumers in a poorer bargaining position and facing less competitive prices.

Source: Today Online, 5 January 2018

*FYI: CCS is now known as Competition and Consumer Commission of Singapore ("CCCS").*

> *With effect 1 April 2018, the Competition and Consumer Commission of Singapore ("CCCS") takes over the role as the government agency responsible for <u>administering and enforcing the Consumer Protection (Fair Trading Act)</u>, in addition to <u>enforcing the Competition Act.</u> The expanded portfolio and mandate will reinforce CCCS's mission of <u>making markets work well for the benefit of both consumers and businesses in Singapore</u>*

a. Explain the possible reasons that motivate collusion among firms in an industry.

b. Explain the impact of price fixing on consumers.

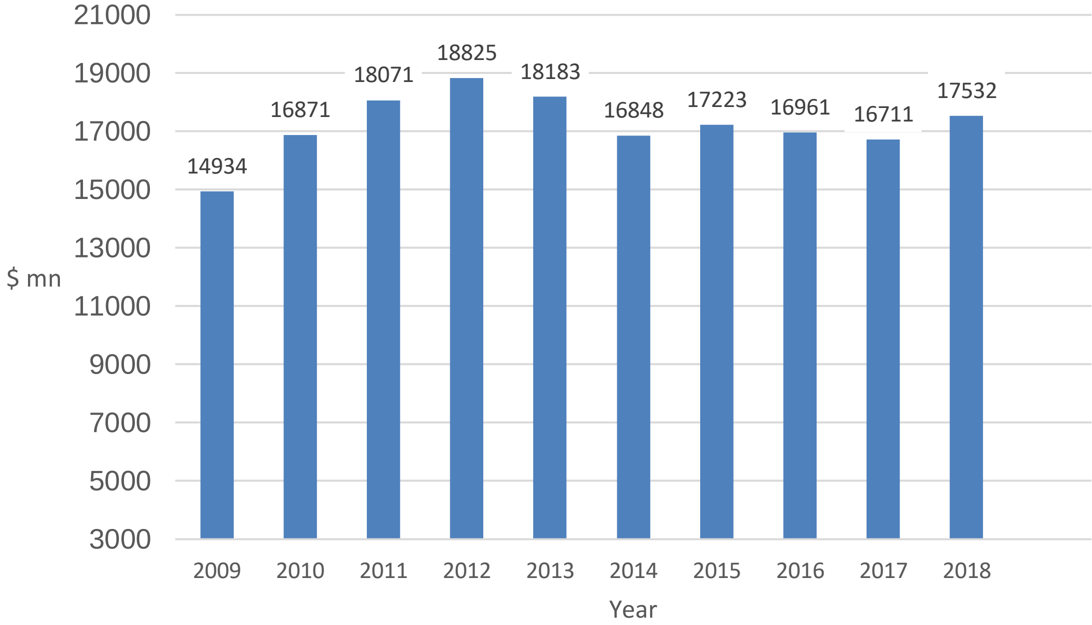
c. Discuss the view that government should intervene to ensure the competitiveness of the electronic component market.

   *(Note to students: question is not focusing on what are the government policies but on the reasons & rationale for government's regulation)*

## Section C: Case Studies Questions

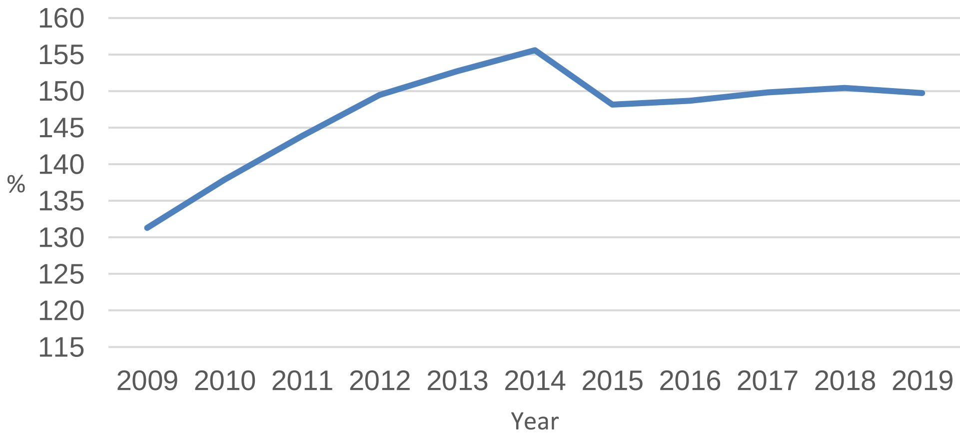
### Question 4: Singapore's big telcos face rising competition *(ACJC Promo 2019)*

**Figure 1: Singtel's operating revenue ($ million)**




Source: Singtel Annual Financial Report

**Figure 2: Mobile penetration rate in Singapore (mobile subscribers over total population)**




Source: Infocomm Media Development Authority, 8 Aug 2019

**Extract 1: TPG enters the scene**

The Australia-based company TPG has successfully bid to become Singapore's fourth telco in December 2016, and is currently building its mobile network infrastructure. Before it starts operations, Infocomm Media Development Authority's (IMDA) priority is to ensure that TPG Singapore will fully meet all its licence and regulatory obligations.

With extremely high mobile penetration rates in Singapore, IMDA believes there is scope for greater competition and service innovation in the market. This could lead to the introduction of new service offerings such as simplified pricing packages, innovative bundles and specialised plans for targeted customers.

In a separate press release, TPG said it "remains committed" to entering the Singapore mobile market" and "intends to ensure TPG Telecom Singapore has the appropriate funding available" as its infrastructure rollout continues. A TPG spokesperson told Channel NewsAsia in an email that its Singapore business is already being run by a strong locally-based team. It had earlier said its first mobile product here will target senior citizens.

Adapted from: Channel News Asia, Aug 2018 & The Business Times, Oct 2018

**Extract 2: Incumbent telcos facing the heat**

Across the region from Thailand to Philippines and Malaysia, telcos have been battling for market share, giving out steep discounts on data and mobile services to entice users to switch sides.

This has hurt smaller markets such as Singapore. The tiny country has a total of 11 telcos, made up of the big three – StarHub, M1 and Singtel – and a new breed of telcos called Mobile Virtual Network Operators (MVNOs) such as Circles.Life and MyRepublic Mobile. These MVNOs do not own or operate network infrastructure but lease them from the incumbent telcos.

Singapore telcos have been slashing the price of their data plans for consumers, in a bid to keep market share. Some 20 gigabytes of mobile data costs as little as S$18 a month – five years ago, 3 gig of mobile data cost about S$40 a month.

To make matters worse, new player TPG is offering unlimited data for 12 months if the consumers switch over, forcing the current telcos to embark on major cost cutting. For example, StarHub embarked on a restructuring exercise last October thereby slashing a tenth of its workforce.

Adapted from: South China Morning Post, 13 Jul 2019

**Extract 3: Major telcos fight back**

Despite the increasing competition, telcos are thought to still have some edge over new entrants, owing to their more established retail presence. They can also rely on broadband services to offer bundle packages. Telcos also possess strong brand recognition and reliability, and the physical infrastructure which underpins their services.

StarHub's employment stands at around 2,500 staff. However, it began its S$25 million restructuring exercise in October last year, laying off 300 full-time workers in a one-off exercise to improve productivity and lower operating expenditure.

Singtel, too, is seeking to lower its operational expenditure of S$490 million in the last financial year. Its group chief financial officer Lim Cheng Cheng has told investors that "a large part will come from the rightsizing through staff optimisation", as well as looking at other costs.

Besides revamping its mobile offerings, M1 plans to undergo three other pillars of strategic transformation: cutting down costs, leveraging its synergies with parent company Keppel Corp and finding future growth platforms.

Adapted from: Today Online, May 2019 & Channel News Asia, Jul 2019

**Questions:**

**(a)** Comment if Figure 2 supports the data shown in Figure 1. **[3]**

**(b)** **(i)** Explain the barriers to entry a new entrant like TPG would face in the market for telecommunications (telecom) services. **[4]**

**(ii)** Consider why it might be a rational decision for a new entrant like TPG to enter the market for telecom services. **[3]**

**(c)** With the aid of a diagram, explain how any of the 'big three' telcos (Extract 2) might determine its price and output when they maximise their profits. **[4]**

**(d)** Comment on the likely impact on the profitability of incumbent firms like Singtel, following the entry of competitors into the market for telecom services. **[6]**

**(e)** Assess whether increased competition in the market for telecom services bring about more benefits than disadvantages to consumers. **[10]**

**[Total: 30 marks]**

## Section D: Essay Questions

**Question 5 (ACJC 2018 Promo)**
In recent years, firms face increasing competition from new entrants in many industries.

**(a)** Explain the key differences between monopolistic competition and oligopolistic competition. [10]

**(b)** Discuss the strategies that an oligopolistic firm could adopt in response to rising competition from new entrants. [15]

**Question 6 (2015 A Level Essay Question 3)**
'Market dominance is the main factor determining the profitability of firms.'

**(a)** Explain how market dominance can influence a firm's price and output decisions. [10]

**(b)** Discuss whether government intervention is always needed when a firm dominates the market. [15]

**Question 7 (2013 A level Essay Question 3)**
"Recessions put weak firms out of business whilst strong firms use a recession to become more efficient"

**(a)** Explain the relevance of different types of cost in the decision of a firm to close when faced by a fall in the demand for its products. [10]

**(b)** Discuss the extent to which the firms faced by high levels of competition are more vulnerable to closure in a recessions than firms in less competitive industries. [15]

**Optional Question 8 (adapted from EJC 2021 Prelims)**

**(a)** Explain why governments intervene in provision of public goods and when monopoly power is present. [10]

**(b)** Discuss the factors that a government should consider when deciding whether to impose price control or pro-competition policy in markets with monopoly power. [15]