TUTORIAL #23: THEORY OF THE FIRM & MARKET STRUCTURE

Part 1: Costs of Production

Section B – Structured Questions

Question 1
For each extract,
1. Identify and explain the type of merger that took place.
2. Identify and explain the possible type of internal economies of scale.

Extract A
Petronas, the state-owned oil company in Malaysia, acquired Star Energy Group Plc in 2008. With the merger, Petronas was able to gain control of a UK natural-gas production and storage business so that Petronas can store and sell more gas in the EU. The merged entity was expected to enjoy higher sales revenue. In addition, more R&D would be conducted to improve the production methods and to develop better quality products for sales in the EU.

1. Vertical integration – Forward or backward integration, depending on how students explain. [PETRONAS' Gas & Power Business is engaged in the processing, liquefaction, transmission, marketing and trading of LNG and gas.], where it involves joining of firms that at different stage of production. If students explain that Petronas which market and trades gas, merged with Star Energy that provides gas storage equipment, it is more likely to be a backward integration.

2. Technical economies – R&D → A large firm have the resources to support research leading to the development of better products and cheaper techniques of production. In this case, the R&D costs can be spread over a larger quantity of gas sold after the merger, thereby lowering unit costs.

Extract B
The Walt Disney Company acquired Pixar Animation Studios in 2006. The successful and memorable feature films that Disney and Pixar have produced since the merger includes "Wall-E", "Up" and "Brave". Pixar has gained the expert advice from Disney when it comes to advertising and marketing. When it comes to marketing to children, no one does it better than Disney.

1. Horizontal Integration, where two firms producing the same product join together. In this case, both firms producing animation films merged to form a bigger entity.

2. Administrative & Managerial Economies → The advertising and marketing role is allocated to a specialist resulting in higher productivity and lower turnover costs. In addition, the cost of the administration per unit of output is reduced.

   Marketing Economies - Large scale advertising → The advertising and marketing cost can be spread over a larger output, hence lowering unit costs.

Extract C

Penguin and Random House have completed a £2.4bn merger in 2013 to create the biggest book publisher, Penguin Random House, in the world. The merger will come from savings on printing, warehouses and distribution, which could amount to $161m. If such savings materialise, that would free up cash to invest in digital printing and experimenting more with self-publishing platforms.

1. Horizontal Integration, where two firms producing the same product join together. In this case, both firms are publishers and are now merged to form a bigger entity.

2. Technical Economies – Specialisation & Division of Labour → As scale of production increases, there is greater scope for specialisation of labour. In this case less training is required and workers can be more productive in their particular job such as in the printing department.

   Technical Economies – Indivisibilities → A firm on a large scale of production is able to spread the capital costs of the machine over larger output levels, lowering unit costs. In this case the sunk costs of the warehouses could be spread over a larger amount of books published by the merged firm.

Extract D

AMR Corporation and US Airways Group, Inc. announced the completion of their merger to officially form American Airlines Group Inc. and begin building the new American Airlines. The new American has a robust global network with nearly 6,700 daily flights to more than 330 destinations in more than 50 countries and more than 100,000 employees worldwide. The combined airline has the scale, breadth and capabilities to compete more effectively and profitably in the global marketplace.

With larger scale of production, merged airline will be able to enjoy cost savings by reaping internal economies of scale. This will enable the merged firm to translate the cost savings to competitive pricing and survive in the airline industry, which has experienced increased competition from merger of other major airlines as well as low-cost carriers.

The airline industry can be separated into four categories i. International Airline ii. National iii. Regional and iv. Cargo. Large airlines such as the merged airline (American airline and US Airways) is international airline, with 130-plus seat planes that have the ability to take passengers just about anywhere in the world. Companies in this category typically have annual revenue of $1 billion or more.

With such higher annual revenue and large international consumer base, this international airline is able to reap technical economies of scale through indivisibilities (gains from spreading overhead costs).
The cost of the aircrafts can be spread over a larger level of output, lowering the unit cost of production. For example, Large airlines have the financial ability to purchase large aircrafts such as Airbus A380, which is a double deck aircraft with maximum capacity of 500 seats.

Moreover, there are also capacity or dimensional economies or cost savings from using bigger capacity aircrafts. Costs do not increase proportionally to capacity. For instance, an aircraft that can carry 3 times more passengers does not cost thrice as much as a smaller aircraft.

A380 is now able to have double the load factor (depending on the proportion of luxury suites),
its cost associated with fuel cost has increased, but in fact is less than proportionately. This is because airlines are now able to fly a single flight, rather than 2 separate flights to a location. Furthermore, Some 25 per cent of the A380 structure is made of composites, generating a total weight saving of 15 tonnes, which contributes to its low fuel consumption.

Therefore, large airlines which are able to purchase such aircrafts are able to make its unit cost of production (provision of service) lower, as shown by a downward movement along the LRAC from Co to C1. (Show using a diagram)

Other possible answers:

- Marketing economies through bulk purchase of inputs for provision of airline service such as catered inflight food and fuel with discount
- Sharing of expertise and resources in R&D and marketing.