

- 1. Growing affluence in emerging markets like China and Vietnam has led to rising tourist numbers in Singapore. However, the higher foreign worker levy has resulted in higher cost of operations for hotels. At the same time, the rise of Airbnb, a company that helps people rent out private accommodation has resulted in greater choice for travellers.**

Discuss the likely combined impact of the above factors on the revenue of different hotel markets in Singapore. [25]

Question interpretation

- What are the different hotel markets?
- How do the mentioned events affect the demand and supply of hotels?
- How do the elasticities of demand differ for different types of hotels in Singapore?
- How will such differences affect the change in revenue for different hotel markets in Singapore?
- What is the likely change in revenue for each type of hotel market?

Introduction

- The hotel market can be segmented into the markets for luxurious, mid-tier and budget hotels.
- This essay will first explain how growing affluence, higher foreign worker levy and the rise of Airbnb affect the demand and supply of different types of hotels.
- The essay then seeks to employ the concepts of price and income elasticities of demand to analyse how the above factors affect the revenues of the different hotel markets in Singapore.

Impact of growing affluence on total revenue of different hotel markets

- Due to rising income levels per capita in China and Vietnam, households in these countries can afford to take more overseas vacations, thus resulting in rising tourist numbers in Singapore.
- As the demand for hotels is derived from the demand for overseas holidays to Singapore, the increase in demand for travel to Singapore causes the demand for hotels in Singapore to rise.
- The demand curve for hotels shifts to the right, resulting in a rise in price and quantity, hence an increase in total revenue (price x quantity).
- The extent of rise in total revenue depends on the magnitude of income elasticity of demand.
- Income elasticity of demand measures the responsiveness of demand for a good to a change in income levels and is calculated by taking the percentage change in demand over the percentage change in income.
- For inferior goods with negative income elasticity, the demand will fall as income rises. Hence both price and output will fall, causing total revenue to fall.
- For normal goods, with positive income elasticity, the demand will rise as income rises. Hence both price and output will rise, causing total revenue to rise.
- The higher the magnitude of the income elasticity of demand, the greater the change in price, output and total revenue.
- Income elasticities differ for different types of hotels because consumers tend to switch from cheaper hotels with fewer amenities to more expensive upscale hotels when their income rises.
- Hence upscale luxurious hotels that provide a variety of services and on-site amenities (e.g. Marina Bay Sands) are likely to be normal-luxuries with high positive income elasticity of demand ($YED > 1$), while cheaper mid-tier hotels (e.g. Amara Singapore Hotel) are likely to be normal-necessities with positive but low income elasticity of demand ($YED < 1$).
- In fact, demand for cheap budget hotels (e.g. Fragrance Hotel) that offer basic accommodation with little or no services may even fall as people upgrade their stays to costlier hotels when their income rises. Hence, the income elasticity of demand for such hotels is likely to be negative ($YED < 0$).
- Thus, while total revenues for both luxurious and mid-tier hotels will rise, the increase is likely to be much larger for luxurious hotels. On the other hand, the total revenue for cheap budget hotels is likely to fall.

Impact of higher foreign worker levy on total revenue of different hotel markets

- The foreign worker levy is a tax on the hiring of foreign workers, and an increase in the levy will increase the cost of operations for hotels due to higher labour costs.
- The supply curve for hotels will shift upwards, resulting in a rise in price and a fall in quantity.
- The direction of change in total revenue will depend on the magnitude of the price elasticity of demand for the hotel rooms.
- Price elasticity of demand measures the responsiveness of quantity demanded of a good to a change in its price, *ceteris paribus*. It is calculated by taking the percentage change in quantity demanded over the percentage change in price.
- When demand is price elastic, an increase in price leads to a more than proportionate decrease in quantity demanded, so the gain in revenue from charging higher prices is lesser than the loss in revenue from selling less output, hence total revenue falls.
- When demand is price inelastic, the opposite applies, and an increase in price causes total revenue to rise instead.
- Even though luxurious hotels cost more than the other types of hotels, the former tend to attract the rich and wealthy while the latter tend to cater to less well-off individuals.
- Hence, expenditure on stays at luxurious hotels is likely to take up a smaller proportion of their clientele's income than that for mid-tier/budget hotels.
- This means that demand for luxurious hotels is likely to be price inelastic while demand for mid-tier/budget hotels is expected to be price elastic.
- For a given decrease in supply due to an increase in foreign worker levy, the increase in price will lead to a less than proportionate fall in quantity demanded for luxurious hotels but a more than proportionate fall for mid-tier/budget hotels.
- Thus, total revenue for luxurious hotels tend to rise while that for mid-tier/budget hotels tend to fall following a hike in foreign worker levy.

Impact of Airbnb on total revenue of different hotel markets

- The rise of Airbnb would mean that travellers now have the option of staying at private accommodation instead of traditional hotels.
- Such residential sharing services increase the availability of substitutes to travellers, as both hotels and private accommodation serve the same function of providing temporary lodging.
- Consequently, the demand for traditional hotels falls as some travellers switch to staying at private homes instead during their stay in Singapore.
- The fall in demand will cause a fall in both price and quantity, hence a decrease in total revenue of hotels.
- However, as private accommodations available for rent on Airbnb often do not come with the standardised services found in luxurious full-service hotels, they are not able to effectively compete with these hotels for the high-end and business travellers.
- Hence, such private lodgings are usually not considered as close substitutes to luxurious hotels.
- On the other hand, such alternative private accommodations are likely to be considered close substitutes to mid-tier hotels and especially so to the cheap budget hotels where services and amenities are minimal.
- Thus demand and total revenue is likely to fall the most for budget hotels, followed by mid-tier and then luxurious hotels.

Combined impact on total revenue of mentioned events

- Given that budget hotels are likely to be considered inferior goods with a price elastic demand, the combination of the above factors is most likely to result in a fall in total revenue in the market from PQ to P1Q1 (Figure 1).

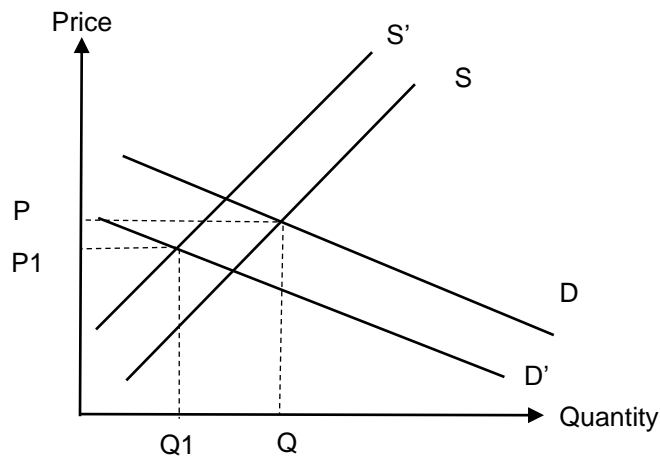


Figure 1: Impact on market for budget hotels

- For the luxurious and mid-tier hotel markets, because the events result in differing changes in revenue, it is necessary to determine the relative impact of the mentioned factors in order to conclude the likely change in total revenue.

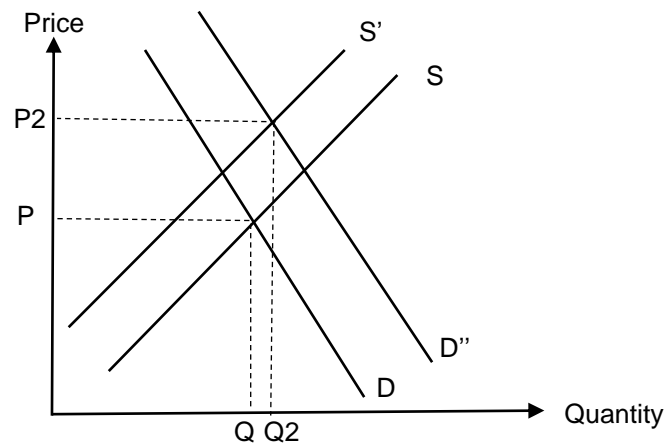


Figure 2: Impact on market for luxurious hotels

- For luxurious hotels, given the likely positive and high income elasticity and the likely low degree of substitutability with Airbnb accommodations, the impact on demand from rising affluence is likely to offset the impact from Airbnb so demand is likely to rise from D to D''
- Coupled with fall in supply along a price inelastic demand curve, total revenue is likely to rise from PQ to P_2Q_2 as seen in Figure 2.

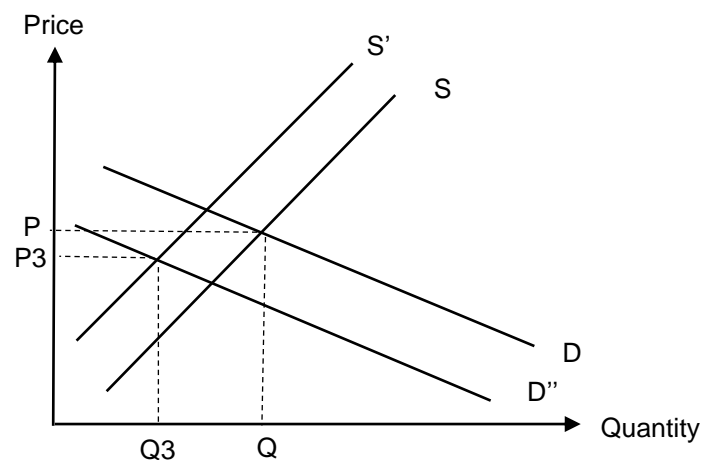


Figure 3: Impact on market for mid-tier hotels

- For mid-tier hotels given the likely positive but low income elasticity and the likely high degree of substitutability with Airbnb accommodations, the impact of Airbnb on demand is likely to exceed that from rising affluence, thus causing overall demand to fall from D to D''
- Coupled with the fall in supply along a price elastic demand curve, total revenue will likely fall from PQ to P3Q3

Conclusion

- In summary, given the characteristics of the different types of hotels, total revenues for budget and mid-tier hotels are likely to fall while total revenue for luxurious hotels is likely to rise.
- However, categorising hotels into luxurious, mid-tier and budget hotels is arguably an over-simplification of the hotel market in Singapore.
- The hotel market is highly differentiated with many sub-categories (e.g. boutique hotels, business hotels) which cater to a clientele that is widely varied in terms of income, needs and preferences.
- As each hotel is likely to have some market power, additional information on characteristics of each individual hotel is arguably required before more accurate assessments can be made.

Mark Scheme

L1	Recognize the impact of the mentioned events on the market for hotels	1-3
L2	Explain how the mentioned events will affect the overall market demand, supply and total revenue of hotels	4-10
L3	Analyse with diagrams how demand elasticities differ for different types of hotels and the resulting impact on total revenues	11-21
E	Assess the likely overall change in total revenue of the different types of hotels in the Singapore context	+4