**Essay Question 30**

**"In the background of rising oil prices and current economic conditions, Singapore Airlines (SIA) announced that it will remove the economy seats from its non-stop -flights to the United States. If economy-class travellers want to fly Singapore Airlines to America, they will have to stop over in Frankfurt, Tokyo or Taipei, increasing travel time by as much as six hours."**

The Straits Times, 5th Mar 2008

(a) Explain the concepts of price elasticity of demand and income elasticity of demand. [10]

(b) Assess the relevance of-these elasticity concepts in explaining SIA's decision to discontinue its non-stop economy-class flights to America. [15]

(a)

State definition and formula for PED and YED:

* PED measures the degree of responsiveness in quantity demanded in relation to a change In the price of the good itself, ceteris paribus.
* YED measures the degree of responsiveness in quantity demanded in relation to a change in the income of the consumers, ceteris paribus.
* Both concepts can be understood in term of their definitions, implication of the co-efficient magnitudes , determinants and main uses.

Explain significance of sign and value:

* PED will always have a negative sign due to the law of demand.
* YED and XED, however, can exhibit both positive and negative signs.
* Positive YED indicates that the good is a normal good while negative YED indicates that the good is an inferior good.
* For the value of PED and YED, the greater the value, the greater will be the influence of that factor in affecting the quantity demanded of the good. For e.g. a high PED value implies that the price of the good is a very significant factor in affecting its quantity demanded while a high YED value implies that changes in the level of consumer income will exert a strong influence on quantity demanded

(b)

1. Explain the impact of rising oil prices on SIA.

Rising oil prices -> petrol is a significant input for airlines, cost of production for SIA increase -> SS curve of SIA services shift upwards -> assuming Dd remains the same, equilibrium price increase and output falls -> profits will fall if (TR-TC) falls

2. Explain why the demand for business class seats price elastic is less than the demand for economy class seats.

-> Therefore, SIA can pass on the increase in petrol cost to business class passengers in terms of higher prices-> less than proportionate fall in quantity demanded -> TR increase.

Discontinue economy-class seats and replacing them with business class seats may be an attempt by SIA to raise price and TR. Assuming total cost remain unchanged, SIA's profit is maximized.

Therefore, PED is relevant in explaining SIA decision.

If income of SIA passengers remains unchanged, then YED is not relevant in explaining SIA decision.

However, if there is a substantial increase in oil prices over a sustained period of time •> raises firms COP and GPL -> high inflation, price instability -» discourage consumption, investment and international trade (rising transportation cost) -> global economic slowdown -> consumers' income falls -> demand for air travel falls.

Extent of fall in demand for SIA services depend on YED. Since business class travelers are typical business men who travel out of necessity and economy class travelers are holiday makers who may see overseas tours as a luxury, demand for business class seat is less income elastic than the demand for economy class seats.

Therefore, demand for economy seats will fall more than the fall in demand for business class seats. Increasing the no. of business class seats and reducing the no. of economy class seats will help to reduce the extent of overall fall in the demand for SIA services and reduce the fall in TR. Assuming constant total cost, this will maximise SIA's profits.

Therefore YED is also relevant in explaining SIA's decision if there is an economic slowdown triggered by the rising oil prices.

OR

Since the Singapore economy did well in 2007, there was an increase in National income -> consumers' income increases -\* Demand for air travel increases -> extent of increase in demand for SIA services depend on YED.

Since business class seats are more comfortable and offer higher quality services, they are a luxury good compared to economy class seats. Therefore, demand for business class seats is more income elastic than the demand for economy class seats. Given an increase in consumers1 income, the demand for business class seats would increase more than the demand for economy class seats. Hence, SIA would want to replace economy class seats with business class seats so that it can reap a larger increase in TR. Assuming constant total cost, this will maximise SIA's profits.

Evaluation:

PED and YED concepts are relevant to the extent that surrounding economic conditions do not change drastically to affect the PED and YED values and that they can be measured accurately and kept up-to-date.

SIA may also take other factors into consideration when making its decisions besides the value of PED and YED.

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Part A

1. **Introduction**

Definition of price Elasticity of Demand and Income Elasticity of Demand

State that the explanation of the concepts covers the definition, the implications of the co-efficient and magnitude, and the uses and determents of the two concepts.

1. **Main body**

1) Explain the concepts of PED in term of the followings:

1. Implication of co-efficient (negative value implies that the good is either a normal or inferior good)
2. Implication of magnitude (zero to infinity- perfectly elastic to perfectly inelastic)
3. Determinants of PED – degree of necessity of demand, proportion of income spent on the good, availability of substitutes and time period for consideration of purchase.
4. Uses – to help the producers to determine price strategy and in helping the government to set taxation policy.

2) Explain the concepts of YED in term of the followings.

1. Implication of co-efficient (negative value implies that the good is an inferior good and positive value is a normal good)
2. Implication of magnitude – the greater the value, the more elastic the good, if the value of the income elasticity of demand is positive and greater than one, it is a luxury good. If the value of the income elasticity of the good is negative and is greater than one, the good is very inferior.
3. Determinants of YED – proportion of income spent on the good which is influenced by the income of the consumer and the price level of good.
4. Uses – to help producer to determine the price sensitivity of the consumers to derive the appropriate price and stock management policies.

**C) Conclusion:**

Both concepts are useful in helping the producers understand the consumer behaviours. However, the information world not be effective when time period is extended, the ceteris peribus assumption does not hold and the social background of the consumer is further discussed.

Part b)

**Introduction**

The impact of rise in oil price will affect the cost of production of the air travel industry which will influence the SIA to discontinue the economy class direct flight services. The information attained from the understanding of PED and YED will help to explain why the SIA needs to discontinue the services for the economy class direct flight.

**Main body**

**1) Explain how the rise in oil price will affect SIA**

Increase in price of oil will lead to a rise in cost of production which will lead to the reduction in the supply – leftward shift if the curve and cause a rise in the price. This will decrease the output and a fall in total revenue which will lead to a fall in profit.

**2) Explain how SIA will respond**

In respond to the impact of rise in price of oil there is a need for SIA to increase price level of the air travel services for both economy and first class.

a) For economy class, it is not feasible to increase price as there will be a fall in total revenue since the demand is price-elastic. A rise in price of the economy class will cause a more than proportional decrease in quantity demanded which will lower the total revenue as the gain in the revenue due to a decrease in quantity demanded. Thus, the profit level will decrease if the total revenue increases and the cost of production increase.

b) Explain why the demand for economy class is price-elastic

1. Low degree of necessity of demand
2. Availability of substitutes
3. Proportion of income spent on the good
4. Time period for consideration of purchase

c) Furthermore, there will be a reduction in demand for the consumers of the economy class when there is an economic downturn as these consumers see the economy class travel as a normal good as the proportional income spent on the good is large since they are tourists who do not travel frequently. The economic downturn will means a fall in income for the consumers which will induce the consumers to decrease their demand for the economy class consequently, there will be a reduction in revenue for SIA for this type of services and it is not advisable for SIA to continue this type of services as it will not be profitable under rising cost condition due to rise in oil price.

**Conclusion**

In sum, the information from PED and YED will helps to explain the rationality of the decision of SIA but there are not other factors to consider to make the decision more productive.