

## Service Supply Constraints and Demand Patterns

### Introduction

Suppose a tourism organization deals with offering holiday packages to the premium end consumers. The company owns more than 300 properties across the country. Over a period of few years it has been observed that there are a few locations which are often the most demanded ones based on seasons and school vacations. Similarly, there are some locations which are not much in demand, except for business purposes. Accordingly, the top management decides to price these destinations differently based on the demand patterns. This decision is based on demand patterns of the tourist destinations.

### Introduction to Service Supply

Services being perishable in nature cannot be stored. This is what results in the problem of managing the supply of services during the periods of fluctuations. The business environment is dynamic and so are the demand situations of the consumers. Sometimes the demand of certain services is very high that there may be waiting lines for the delivery of these services and at other times, there may be idle capacity for service production. A service manager needs to balance the supply of services so as to meet the demand of the same in not less or not more than what is required in the target market. However, for any service organization, there are four different possibilities of service production situations in a given time period:

- a) **Excess service demand-** This is a situation in which the demand for a service is more than the supply capacity.
- b) **Demand exceeds optimum capacity-** In this situation the demand for a service is more than what can be offered in a smooth manner to the potential consumers. No one is refused a service but there may be mismanagement or chaos due to heavy rush.
- c) **Demand and supply are balanced-** In this situation, the demand is balanced with the supply to the most ideal level.
- d) **Excess Service capacity-** the service capacity is more than the demand for the service.

Services are tangible and perishable in nature. It poses a great challenge for the marketers to ensure a consistent supply given the demand fluctuations as their services cannot be stored to be supplied as per the demand of the market. As the process of supply of services is difficult and complex, it renders itself more readily to inconsistency, which should be checked by the service providers. The supply constraints should be managed consistently with the demand fluctuations and the strategies should be as transparent as possible.

### Problems in Services Supply

Supply of services is a more complicated and uncertain process than Supply of manufactured goods. Due to the experiential nature of services being intangible and perishable, it is hard to assess the capacity of delivery of the service to the consumers. Secondly, due to lack of objective ownership of

services, justifying the capacity of services becomes complex. Supply is one of the most important elements of Production and Marketing of Services. Though study of Demand and Supply may not receive its due attention in service firms, yet it is a critical factor to determine the success and otherwise of a firm.

Capacity planning for Services is a very complex task and there are several hurdles in determining one best level which a service firm will decide upon. Often a trade-off between the Demand and Supply may be noticeable in Service Marketing. This may happen when due to dynamic market situations, the service manager constantly has to plan the supply level.

There are several factors affecting the firms decision to fix a capacity level of services:

1. Customers expectations,
2. Competitive pricing,
3. Legal framework governing marketing of services,
4. Social environment and the technological environment affecting the marketing and consumption of services.

The following are some of the constraints faced by the Service Marketers to finalise the supply capacity of the Services:

- a) **No Standard Input Cost:**  
While the product manufacturing may have standard input cost and a uniform level of finished goods quality, the services may be diverse in its own character as well as in its features. This diversity makes a standard supply of services difficult. For example, for various services, a hotel manager may be incurring different costs. The demand for different services would be different depending upon the demand from different segments of consumers based on income. Hence, the service manager may have a tough time in deciding how much arrangement for various services needs to be made.
- b) **Services being Perishable cannot be stored to cater to demand fluctuations:**  
One of the most important factors affecting the pricing of services is the Perishable nature of Services. Since the demand fluctuations of services cannot be met by creating Services Inventory, it is very difficult for the marketer to fix a price to meet different demand levels. One might have come across low rate of the movie tickets during odd hours like for early morning shows or during weekdays, when less audience is expected. This may also be observed when various Airlines charge a lower air fare during off seasons. This is the strategy made use of by the Service providers to offset the perishable nature of the services.
- c) **Services being intangible makes cost calculation difficult:**  
Another dimension that can complicate the demand pattern is the high Intangibility in the Services. Since the component of Intangibility is very high for Services, it becomes difficult to calculate the cost of various activities or processes. For intangible yet homogeneous services like dry cleaning , it is easier to calculate the cost per unit and thus have an expected demand pattern for various items. However, in case of non-uniform services like Health practitioners, Nutritionists, Image Consultants, Lawyers etc.; there is no standard service being provided to the buyer, no uniform cost structure per unit and hence the calculation of actual demand may be difficult. It may be said that more customized service being offered to the customer, greater flexibility there can be in demand estimation of the service. In such cases the demand may be arrived at by estimating the paying capacity of the target customers.
- d) **Government Regulations:**  
For some services, the supply may be fixed by the Government or other regulatory agencies of the land. Some of the examples of services in which the supply may be

subject to governmental regulations could be the capacity of Railways, Toll taxes, Electricity supply or water supply. In some services, the trade associations may also play a direct or an indirect role in supply fixation. For some International services like Waterways, Airways etc the supply of services may be affected by International agreements or understanding.

Despite the various problems involved in the process of estimating the supply level for a service, it remains the most significant activity of Service marketing as it is the timely availability of the required service in required quantity which directly contributes in the Sales profit and growth of a firm.

## Demand

It refers to the quantity required by a consumer of any commodity for which he is willing to buy and has an ability to buy.

### Function of Demand

#### (a) Individual demand function

$$D_x = f(P_x, P_r, Y, T, E)$$

$P_x$  = Price of Commodity X

$P_r$  = Price of Related Commodity

Y = Income of Consumers

Complementary Goods (Price Increase of 1 decrease

demand for 2) Normal Goods (Income increase leads to increase in demand)

Inferior Goods (Increase in Income leads to decrease in demand) T = Tastes and preferences of Consumers. It changes due to Climate, Fashion etc.

E = Expectations of the consumers.

#### (b) Market demand function

$$D_x = f(P_x, P_r, Y, T, E, N, Y_d)$$

$P_x$  = Price of Commodity X

$P_r$  = Price of Related Commodity

Y = Income of Consumers

E= Expectations of the consumers.

N = Size of Population/  
Consumers

$Y_d$  = distribution of income

## I. Demand Schedule

Individual	Market
Demand of a commodity of an individual consumer at different prices.	Demand of a Commodity of all consumers at different prices.

## II. Demand Curve (Graphical representation)

It is a graphical representation of the Demand function on a plane. Independent Variable is shown on the Vertical axis like Price variable.

Dependent Variable is shown on the Horizontal axis like Quantity demanded, Aggregate of all consumer's demand etc.

## III. Demand forecasting

This is a systematic process of identifying the demand for a given service at a given point of time for a given marketplace. There may be various tools and techniques used by the service manager to evaluate the demand of a particular service. Such tools can range from a jurist or an expert opinion to a statistical trend analysis for understanding the demand pattern.

### Demand Pattern:

The service output in various organizations can be worked out on the basis of demand curves which may be charted out for a given period of time through statistical analysis. There are several demand curves which may be used to predict the demand for various services. There are a number of demand curves like:

- e) Stable and Constant demand
- f) Stable and Cyclic demand
- g) Linear and accelerating demand
- h) Linear and diminishing demand
- i) Life cycle demand etc.

A service organization can make use of a number of techniques to understand the demand patterns. Some of these are:

- a) **Charting Demand Pattern-** This refers to a systematic process of understanding the demand of a service being witnessed over a period of time and then making a judgment about the future demand. For this evaluation of demand often the organization making use of MIS are more accurately able to chart the demand pattern
- b) **Predictable cycles-** Often the factors that affect demand can be categorized as predictable and unpredictable. The predictable factors can facilitate in charting a demand pattern for a service.
- c) **Random demand Fluctuations-** In general, the demand patterns do not follow very predictable pattern for services. There may be random fluctuations of demand which may not be easily identifiable.
- d) **Market Segments and demand patterns-** one of the most simplified method of charting out a demand pattern is the division of market into homogeneous market segments and the development of their segregated demands. This facilitates in accurately identifying demand patterns across the various segments.

### Matching Demand and Supply

A service organization needs to have a clear understanding of the supply constraints and the

demand patterns, to be able to match demand and supply for the service at a given period of time. There are two approaches to manage the balance between the demand and supply. The first is to smoothen the demand fluctuations and accomplish a match between the demand and supply. The second is the ability of the service organization to adjust the service production to match the demand fluctuations of the market. For managing to strike a balance between the demand and supply, the service firm can attempt to keep the consumers away during the duration when the demand is more than supply. This may be done through:

**1. Differential pricing:** Differential pricing of services during peak time and during slow time. Differential Pricing is also called as the Flexible pricing. In this tactic, the Service seller may charge a different price to overcome the 'Perishability' characteristic of the Services and manage the demand fluctuations of the market. This tactic means charging a different price for the service. The differences may be based on:

- i) Customer's ability to Pay- the Service marketer may charge a different price for different set of customers for almost the same level of service. For example, Electricity board may charge a different price for Supply of Electricity from Domestic and Commercial consumers.
- ii) Time Differentials- Different prices may be charged for almost the same service on a different time of purchase. A restaurant may give some discount on its regular dishes on the off-peak hours. Similarly, Airlines may offer lower prices during off-season to the customers.
- iii) Place differentials- A service may be charged differently depending on the place of its deliver or consumption. Rent of a room or a building may be charged differently on the basis of its location. Cinema Hall tickets may be priced differently for a same movie depending on the row in the Hall.

**2. Discount Pricing-** Such a practice means to offer a discount to an intermediary for rendering a service. This tactic is often used to generate demand during off-seasons. For example, a DJ may charge a lesser price for playing in a marriage if contacted via a Banquet hall owner or an Advertisement booked through an Advertising Agency may be charged less.

**3. Varied Service Offering-** Services being intangible, there is a lot of variation in the input and output as also in the demands and expectations of the customers. Thus, there are several service support activities offered to the customer of a similar service. The cost of each of these activities may be added up to arrive at a final price of the service being offered.

For instance, A DTH operator may charge a differential pricing from a subscriber buying a different set of Satellite channels. The pricing of the DTH subscription depends upon the subscriber's choice of channels he wants to watch. Thus the DTH operator charges different price for different channel combinations.

## Conclusion

Demand refers to the quantity being needed, backed with the ability and willingness to purchase, by the potential customer for a given commodity at a given price at a given time. Supply is the capacity of the service marketer to make a service available to the service consumer at a given quantity, at a given price and at a given rate.

Services, due to its essential nature of perishability and intangibility cannot be manufactured and stored. It is produced and consumed at the same time. This results in supply constraints at a number of times when the demand may exceed the supply or the supply may exceed the demand.

A service manger not only has to understand the demand patterns to assure of a smooth supply but may also be required to make a few strategies to spread demand during peak season and get more demand during the off seasons.

