



RC-4453-54
M. B. A. (Sem. IV) (FT) &
M. B. A. (Sem. VI) (Eve.) Examination
April / May – 2010
Service Operations Management
(Old Course)

Time : 3 Hours]

[Total Marks : 100

RC-4453

Instructions :

(1)

<p>नीचे दशांशवले निशानीवाणी विगतो उत्तरवडी पर अवश्य लभवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination :</p> <p>M. B. A. (Sem. 4) (FT) & (Sem. 6) (Eve.)</p> <p>Name of the Subject :</p> <p>Service Operations Management (Old)</p> <p>Subject Code No. : 4 4 5 3 Section No. (1, 2,.....): 1</p>	<p>Seat No. :</p> <table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td></tr></table> <div style="border: 1px solid black; border-radius: 15px; height: 80px; display: flex; align-items: center; justify-content: center; margin-top: 10px;">Student's Signature</div>						

- (2) Q. 1 and Q. 6 are **compulsory**. Attempt any **two** questions out of Q. 2, Q. 3, Q. 4 and Q. 5 from Sec. I.
 - (3) Figures to the right indicate full marks.
 - (4) Write examples to support your answers.
 - (5) Write **two** sections **separately** in **two separate** answer books.
- | | | |
|---|--|----|
| 1 | Explain the role of inventory in Services. State the characteristics of Services giving examples. Also explain the EOQ model with respect to services. | 18 |
| 2 | What is Service Quality ? Explain Service Gap Model and also explain dimension of Service Quality by giving appropriate examples. | 16 |
| 3 | What do you mean by Services ? Explain types of Services. Also describe the Service Package and Service Process Matrix by taking an appropriate example. | 16 |
| 4 | What do you mean by service capacity ? Explain the different strategies for service capacity planning. | 16 |
| 5 | What do you mean by Service Layout ? Explain different types of service layouts. | 16 |

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6 Solve the following Case Study : **32**

Commuter Cleaning - A New Venture Proposal

The service vision of Commuter Cleaning is to provide dry cleaning services for intervals with careers or other responsibilities that make it difficult for them to find the time to go to traditional dry cleaners. The company's goals are to provide a high quality dry cleaning service that is both reliable and convenient.

The targeted market consists of office workers who live in the suburbs of large metropolitan areas. The service will be marketed primarily to single men and women as well as dual career couples, because this segment of the population has the greatest need for a quality dry cleaning service but does not have the time to go to the traditional dry cleaners. The targeted cities are those surrounded by suburbs from which many people commute via mass transit.

The facilities where customers will drop off and pick up their dry cleaning will be located at sites where commuters meet their trains or buses in to the downtown area. For pick each city, it will be necessary to determine who owns these transit stations and how land can be rented from the owner. In some locations, facilities, and the pickup and drop-off booths will need to be built.

The facilities for laundry pickup and drop-off -need not be large. The building - or - room at the station need only be large enough to accommodate racks for hanging the finished dry cleaning.

Initially, it may be necessary to restrict the service to laundering business-wear shirts, because these are the easiest of all clothing articles to clean and also will allow the operations to be simplified. Typically, a man or woman will need a cleaned shirt for each workday, so a large demand exists. One drawback would be the diminished customer convenience, because dry cleaning of garments would necessitate a separate trip to a traditional dry cleaner. If dry cleaning were outsourced, however, it would be possible to offer full-service cleaning very quickly, because a plant and equipment need not be purchased.

A decision also needs to be made about providing same day or next-day service. One factor in this decision will be whether competitors in the area offer same day service. These cleaners represent a serious threat only if they open early enough and close late enough to be convenient and accessible to customers. Most important, same-day service should be provided only where it is feasible to deliver on this promise consistently.

All advertisements will include a phone number that potential customers can call to inquire about the service. When a customer calls, he or she can request the service. That same day, the customer will be able to pick up a Commuter Cleaning laundry bag with the customer's name and account number on it. and a membership card that is coded with the account number.

The delivery system will be a hub-and-spoke system, similar to the one that FedEx uses for package handling. Customers will have the convenience of dropping off their laundry at numerous neighborhood commuter stations. All dry cleaning will be picked up and delivered to one central plant, and once the shirts are clean they will be returned to the customer's drop-off point. Same-day service is possible with pickups beginning at 8.00 am and returns completed by 5.00 pm.

The customer will place the dirty shirts in the bag at home and simply leave the bag at the station on the way to work. The station workers will attach a color-coded label on the bag to identify the location where the shirts were dropped off so that they can be returned to the same station. A laundry pickup route will be established to bring bags from each location to the central cleaning plant. Once the bag reaches the central plant, the items will be counted and the number entered into the billing database. After the shirts have been cleaned, they will be put on hangers with the customer's laundry bag attached. The cleaned shirts will be segregated according to the location to which they need to be returned and then placed on a truck in reverse order of the delivery route. The customer will provide the station worker with his or her membership card, which will be used to identify and retrieve the customer's clothing and bag. Because all customers will be billed monthly, the time to pick up the laundry should be expedited and waiting lines avoided.

Initially, cleaning will be outsourced to a large dry cleaner with excess capacity. A favorable rate should be negotiated because of the predictable volume, convenience of aggregating the demand into one batch, and performing the pickup and delivery service. Contracting for the cleaning will reduce the initial capital investment required to build a plant and buy equipment, and it also will provide time for the business to build a customer base that would support a dedicated cleaning plant. Further, contracting will limit the financial risk exposure if the concept fails. If the cleaning is outsourced, there will be no need to hire and manage a workforce to perform the cleaning; therefore, management can focus on building a customer base instead of supervising back-office activities. Also, with contract cleaning, it is more feasible to offer dry cleaning services in addition to laundering business shirts.

In the long run, however, contract cleaning may limit the potential profitability, expose the business to quality problems, and prevent the opportunity to focus cleaning plant operations around the pickup-and-delivery concept. Ideally, once Commuter Cleaning has built a large client base and has access to significant capital, all cleaning will be done internally.

Most of the hiring will be targeted to area college students. Initially, two shifts of workers will be needed for the transit station facilities but just one van driver at any given time. As business expands, additional vans will be acquired and additional drivers hired. The first shift of drop-off station workers will begin at 6.00 am and finish at 9.00 am, at which time the van driver will transport the items from the drop-off sites to the cleaning site. The number of drivers needed and the hours they work will depend on how many pickup and drop-off sites exist, their proximity to each other, the cleaning plant location, and the ability to develop efficient routing schedules. The second shift of drivers will deliver the cleaning from the plant to the transit stations from about 3.30 to 5.00 pm. The second shift of transit-site workers will begin at 5.00 pm and end when the last train or bus arrives, usually about 8.30 pm. Once cleaning is done internally, it will be possible to have plant employees also pick up the laundry and deliver it to the stations each day. This will allow Commuter Cleaning to hire some full-time workers, and it also will bring the back-office workers closer to the customers so that they can be more aware of problems and customer needs.

College students will be the best candidates for workers, because their schedules vary and classes usually are held in the middle of the day, from about 10 am to 3 pm. Also, depending on course loads, some students may only have time to work three hours a day, while others may choose to work both the first and second shifts. The starting salary will be set slightly above the wage for the typical part-time service jobs available to college students to discourage turnover.

When Commuter Cleaning is first introduced into a city, additional temporary workers will be needed to manage the customer inquiries for initiating the service. The week before introduction of the service. The week before introduction of the service, representatives will be at the station facilities to answer questions and perform the paperwork necessary to have additional representatives managing the phones to handle the inquiries. All employees will have the title "customer service representative" to stress the function of their jobs. These workers will be encouraged to get to know their customers and reach a first-name basis with them.

Commuter Cleaning Economic Analysis

Expense Item	Monthly Amount	Assumptions
Transit station rent	\$ 2,800	7 locations at \$400 each
Delivery van	500	1 minivan (includes lease payment and insurance)
Station customer service representatives	5,544	7 locations, 2 shifts averaging 3 hours per shift at \$6 per hour
Driver	528	1 driver, 2 shifts averaging 2 hours per shift at \$6 per hour
Fuel	165	30 miles per shift at 12 mpg and \$1.50 per gallon
Business Insurance	100	
Office customer service representatives	4,000	2 office workers each paid \$24,000 a year
Laundry bags	167	Cost of 1,000 laundry bags at \$2 each, amortized over one year
Total monthly expenses	\$13,804	22-day month

When customers initiate service, they will be encouraged to open an account for monthly billing rather than to pay each time that items are picked up. At this time, the customer service representative will collect all the necessary information, including name, address, phone number, location from where they commute, and credit card number. If a customer desires, the amount owed will be charged to the credit card each month. This is the most desirable form of payment, because it is efficient and involves no worry of delayed payments. This method also is becoming more common, and people generally now are comfortable having their credit cards billed automatically. Each month, statements will be sent to all customers with transactions to verify the bill and request payment from those who do not use a credit card. If a customer is late in paying, a customer service representative will call and ask if he or she would like to begin paying with a credit card. Repeatedly delinquent customers will be required to pay at the time of pickup, a stipulation that will be included in the customer's initial agreement for service. The customer service representative will be responsible for customer billings. Each day, the laundry delivered to the plant will be entered into a database that accumulates each customer's transactions for the month.

A smooth demand throughout the week is desirable to create a stable work load; however, actions likely will be needed to control fluctuations in demand and to avoid imbalances in the work load. One method of controlling demand is through price specials and promotions. Offering a discount

on certain days of the week is common practice for dry cleaners, and one approach would be to offer special prices to different customer segments to entice them to bring in their laundry on a certain day. For example, Friday may be the busiest day of the week and Monday and Tuesday the slowest. In this case, the customer base could be divided (e.g. alphabetically) and each segment offered a discount price on a particular day. Other ideas include providing a complimentary cup of coffee to anyone bringing a laundry on Monday. These promotions can be implemented once demand fluctuations are observed.

Attention also must be given to holidays, which may create temporary surges or lulls in business.

Questions :

- (1) Prepare a service blueprint for Commuter Cleaning
- (2) What generic approach to service system design is illustrated by Commuter Cleaning, and what competitive advantages does this design offer?
- (3) Using the data in Table, calculate a break-even price per shirt if monthly demand is expected to be 20,000 shirts and the contract with a cleaning plant stipulates a charge of \$0.50 per shirt.
- (4) Critique the business concept, and make suggestions for improvement.

7 Write short notes on : (any two)

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- (1) Automation in services.
- (2) Competitive Role of Information in services
- (3) Single Server Model
- (4) Factors affecting the selection of a new service