

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)

DEPARTMENT OF BUSINESS AND TECHNOLOGY MANAGEMENT

Semester Final Examination

Summer Semester, A. Y. 2022-2023

Course No: BTM 4633

Time : 3 hours

Course Title: Strategic Operations Management

Full Marks : 150

Answer all 6 (six) questions. All questions carry equal marks. Marks of each question and corresponding CO and PO are written in the right margin within brackets.

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|-------|--|-------------------|
| 1. a) | Define operations strategy in terms of manufacturing and service? Demonstrate the model of tactical and strategic concern in manufacturing operations. | 09 (CO1)
(PO1) |
| b) | Demonstrate the sources of competitive advantage? How can a company make the competitive advantages sustainable? Give an example. | 08 (CO1)
(PO1) |
| c) | What are the different types of forecasting? Discuss the quantitative approaches of forecasting. | 08 (CO3)
(PO4) |
| 2. a) | Which factors can affect demand of a product/service? Which strategies can be taken to manage demand? Discuss with example | 10 (CO3)
(PO4) |
| b) | Write the classifications of SME organization. Discuss the sources of core capabilities of SME and larger firms. | 10 (CO2)
(PO3) |
| c) | What are building blocks of retail operation strategy? | 05 (CO1)
(PO1) |
| 3. a) | Define lean production, mass customization and agile manufacturing approach. | 06 (CO1)
(PO1) |
| b) | How do company strategies and operation management strategies align? Which operation management strategies can be taken for each stage of product life cycle? Explain those with examples. | 12 (CO3)
(PO4) |
| c) | What are the main problems associated with long-term forecasting? In what industries might such activities be easier or harder? | 07 (CO3)
(PO4) |
| 4. a) | Identify and explain the four global operations strategy options a company can choose. | 12 (CO1)
(PO1) |
| b) | Productivity can be measured in a variety of ways, such as by labor, capital, energy, material usage, and so on. At Modern Lumber, Inc., Art Binley, president and producer of apple crates sold to growers, has been able, with his current equipment, to produce 240 crates per 100 logs. He currently purchases 100 logs per day, and each log requires 3 labor-hours to process. He believes that he can hire a professional buyer who can buy a better-quality log at the same cost. If this is the | 13 (CO3)
(PO4) |

case, he can increase his production to 260 crates per 100 logs. His labor-hours will increase by 8 hours per day. What will be the impact on productivity (measured in crates per labor-hour) if the buyer is hired?

5. The monthly sales for Yazici Batteries, Inc., were as follows:

25 (CO3)
(PO4)

Month	Sales (unit)
January	20
February	21
March	15
April	14
May	13
June	16
July	17
August	18
September	20
October	20
November	21
December	23

Instructions:

- Plot the monthly sales data.
- Forecast January sales for the next year using Naive method.
- Forecast January sales for the next year using 3-month moving average.
- Forecast January sales for the next year using 6-month weighted average using .1, .1, .1, .2, .2, and .3, with the heaviest weights applied to the most recent months.
- Forecast January sales for the next year using Exponential smoothing using an $\alpha = .3$ and December forecast of 20.

6. a) Explain the characteristics of a service operation with example.

07 (CO1)
(PO1)

- b) Hard Rock Cafe: Operations Management in Services

18 (CO2)
(PO3)

In its 45 years of existence, Hard Rock has grown from a modest London pub to a global power managing 150 cafes, 13 hotels/ casinos, and live music venues. This puts Hard Rock firmly in the service industry—a sector that employs over 75% of the people in the U.S. Hard Rock moved its world headquarters to Orlando, Florida, in 1988 and has expanded to more than 40 locations throughout the U.S., serving over 100,000 meals each day. Hard Rock chefs are modifying the menu from classic American—burgers and chicken wings—to include higher-end items such as stuffed veal chops and lobster tails. Just as taste in music changes over time, so does Hard Rock Cafe, with new menus, layouts, memorabilia, services, and strategies. At Orlando's Universal Studios, a traditional tourist destination, Hard Rock Cafe serves over 3,500 meals each day. The cafe employs about 400

people. Most are employed in the restaurant, but some work in the retail shop. Retail is now a standard and increasingly prominent feature in Hard Rock Cafes (since close to 48% of revenue comes from this source).

Cafe employees include kitchen and waitstaff, hostesses, and bartenders. Hard Rock employees are not only competent in their job skills but are also passionate about music and have engaging personalities. Cafe staff is scheduled down to 15-minute intervals to meet seasonal and daily demand changes in the tourist environment of Orlando. Surveys are done on a regular basis to evaluate quality of food and service at the cafe. Scores are rated on a 1-to-7 scale, and if the score is not a 7, the food or service is a failure. Hard Rock is adding a new emphasis on live music and is redesigning its restaurants to accommodate the changing tastes. Since Eric Clapton hung his guitar on the wall to mark his favorite bar stool, Hard Rock has become the world's leading collector and exhibitor of rock 'n' roll memorabilia, with changing exhibits at its cafes throughout the world. The collection includes 70,000 pieces, valued at \$40 million. In keeping with the times, Hard Rock also maintains a Web site, www.hardrock.com, which receives over 100,000 hits per week, and a weekly cable television program on VH1. Hard Rock's brand recognition, at 92%, is one of the highest in the world.

Discussion Questions

- i. Identify how each of the 10 OM strategy decisions is applied at Hard Rock Café.
- ii. How would you determine the productivity of the kitchen staff and waitstaff at Hard Rock?
- iii. How are the 10 OM strategy decisions different when applied to the operations manager of a service operation such as Hard Rock versus an automobile company such as Ford Motor Company?