

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

DEPARTMENT OF BUSINESS AND TECHNOLOGY MANAGEMENT

Mid-Semester Examination

Winter Semester, A. Y. 2022-2023

Course No. : BTM 4523

Time : 1.5 hours

Course Title : Logistics and Supply Chain Management

Full Marks : 75

Answer all 3 (three) questions. All questions carry equal marks. Marks of each question and corresponding CO and PO are written in the right margin with brackets.

1. a) Describe lean production system and bull-whip effects of supply chain with example. 07 (CO1)  
How lean production system can reduce bull-whip effects of supply chain? (PO1)
- b) What do you mean by zone of strategic fit? How zone of strategic fit can be achieved by integrating implied demand uncertainty and responsiveness to ensure society's benefit? 08 (CO3)  
Explain with example. (PO8)
- c) How do you evaluate and select your supplier to gain sustainability in your supply chain performance? Is weighted criteria evaluation system of supplier selection give you the best result all the time? Analyze with example. 10 (CO2)  
(PO8)
2. a) What is 3<sup>rd</sup> party logistics? Differentiate between logistics and supply chain with example. 09 (CO1)  
(PO1)
- b) Let's suppose you are stocking iPhone 12 for sale. You will forecast your sales and then you look at how much of that your supply chain can cover. For example, you are in a large metro area and can sell 50,000 iPhone 12 but the lousy supplier will give you only 30,000 iPhone 12. That means the maximum number of customers you can handle is 30,000. Let's say, you do a little looking at trends and determine that 25% of your customers have to upgrade to the iPhone 12 due to work requirements (perhaps phone security). Then 75% of your sales will be due to the customer's desire to have the latest Apple phone. So, your implied demand uncertainty is 75% of 30,000. That is, if the reviews are bad or the customers decide the other versions or models of iPhone are fine, then you could have (75% of 30,000) iPhone 12 in stock that you can't sell. (CO1)  
(PO1)

**Discussion Question:**

- i. Define implied demand uncertainty with example using "The Implied Uncertainty (Demand and Supply) Spectrum". 08
- ii. Identify the correlations between Implied demand uncertainty and other attributes of supply chain to identify the right supply chain for a product. 08

3. a) The world's largest athletic apparel company, Nike is best known for its footwear, apparel, and equipment. Founded in 1964 as Blue Ribbon Sports, the company became Nike in 1971. One of the most valuable brands among sport businesses, Nike employs over 76,000 people worldwide.

Nike's supply chain strategy heavily emphasizes the use of multiple sourcing partners. The major way we see Nike supply chain management meet future needs is through virtual organizations. These will be based on intellectual capital brands, technology, new product development, new channel strategies-with operations activities largely outsourced. As a result, Nike is always shopping for new and more productive manufacturing sites around the world. In this shopping process, Nike is looking for, among other things, inexpensive labor, low import taxes, and high levels of efficiency in the manufacturing process.

Nike, selling \$9 billion worth of athletic shoes annually; does so without owning any factories itself, performance, and reducing claims and cancellations to lower inventory holding costs. To maintain these important parts of their strategy, Nike officials are located at all foreign factories. However, with new competitive entrants, with better service and lead time, and even fashion brands moving into their market space; supply chain excellence has stood elevated in the past few years and view as a competitive weapon. Demand planning processes are being redesigned from the retail perspective, and "retail reality" is incorporated in product design. Their delivery precision roadmap includes a playbook of prioritized initiatives, with executive sponsorship, including demand/supply matching, improving sales catalog accuracy, streamlining distribution center operations, and optimizing processes globally. They have also created a governance board that sets the strategies, prioritizes the initiatives, and drives company-wide execution based upon standardized processes and platforms.

Nike has run into several different challenges in its attempts to continue its global manufacturing strategy and supply chain management. One of the major problems was achieving a level of cooperation with foreign manufacturers. An obvious reason for this is the language barrier between Nike officials and foreign workers. However, some issues were more complex than this. At times, there were significant initial costs relating to updating the technology in the manufacturing facilities. Traveling costs by Nike officials to these foreign locations began to add up; while many countries lacked the infrastructure and accounting capabilities to control costs. Nike has attempted production in Europe as well as multiple locations in Asia. Nike began producing in Europe because of the trade restrictions existing in China and the level of difficulty to do business in China. However, European manufacturers were never able to reach the efficiency of Asian sites, even when quotas, duties, and manufacturing costs exist considered. This is largely because of Asia's inexpensive labor.

Nike has been successful in overcoming these problems in several different ways. Nike can utilize a small number of partners that have many positive characteristics including

infrastructure, material resources, technical know-how, labor-management, and operational experience. Nike has built valuable, long-term relationships with these partners. Nike has been designing all of its products in-house since it launched its name-branded shoes in 1971.

Most exciting thing is Nike's first dedicated outlet in Dhaka opened for customers at Banani Road 11, on 20 July, 2023. The outlet, established in collaboration with DBL Lifestyles, a part of the prominent business conglomerate DBL Group, exclusively offers Nike sneakers, sportswear, and accessories. Since its opening, the outlet has seen a significant influx of customers. The footwear ranges from Tk 5,000 to Tk 30,000 per pair, while apparel items are available at prices ranging from Tk 1,500 to Tk 15,000.

A mid-level manager stated, "After launching Puma's showroom in 2019, we have seen good competition. Currently, we have five Puma showrooms combined in Dhaka and Chattogram." Previously, the organization's Vice Chairman, MA Rahim Feroz, had informed TBS about the upcoming launch of new showrooms for Adidas and Nike in Bangladesh. Now, Nike has been added to its retail portfolio and it's committed to add more globally renowned brands in the days to come, to cater to the demands of the local consumers.

**Discussion Question:**

- i. What strategies would be helpful for Nike to overcome the potential challenges that might arise in Bangladesh? 08
- ii. Apply porters' five forces model on Nike Bangladesh. 10
- iii. What strategies would be helpful for Nike to be sustainable in Bangladesh? 07