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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2018/2019**

COURSE NAME : SUPPLY CHAIN MANAGEMENT
COURSE CODE : BPB 32303
PROGRAMME CODE : BPB
EXAMINATION DATE : JUNE / JULY 2019
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF FOUR (4) PAGES

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- Q1**
- (a) Define bullwhip effect. (2 marks)
 - (b) Discuss **TWO (2)** factors that can result lack of coordination in the supply chain. (8 marks)
 - (c) Explain **FIVE (5)** managerial levers to achieve coordination in supply chain. (10 marks)
- Q2** One of the UK's biggest suppliers of toilet and kitchen roll has been stockpiling about 3.5m rolls in UK warehouses in preparation for a no-deal Brexit. The German firm Wepa said it had been storing an extra 600 tonnes of toilet and kitchen roll in the last three to four months to safeguard supplies in Britain, in case the UK crashes out of the EU without an agreement on 29 March. The company has also built six weeks' supplies of the cardboard core used inside the rolls, as this cannot be sourced from the UK in sufficient quantities and is imported from EU countries in Eastern Europe and Scandinavia.
- (a) Demonstrate **TWO (2)** options the company can use to respond to predictable variability of demand in the supply chain of Wepa. (10 marks)
 - (b) Analyse **TWO (2)** factors that could lead to increased demand of Wepa's toilet and kitchen roll. (10 marks)

- Q3** (a) Illustrate direct shipping with milk runs transportation networks. (6 marks)
- (b) Determine **TWO (2)** benefits of using direct shipping with milk runs against others transportation network. (4 marks)
- (c) Kedai 1 Malaysia has eight stores in Batu Pahat district supplied from four supply sources. Trucks have a capacity of 40,000 units and cost RM1,000 per delivery. The cost of holding one unit in inventory at retail for a year is RM0.20. Each delivery is considered Full Truckload (FTL) and using direct shipment network. If annual sales for each product at each retail store are 960,000 units;
- Calculate:
- (i) Number of deliveries per year from each supplier to each store. (4 marks)
- (i) Annual trucking cost from one source to eight stores for direct network. (3 marks)
- (ii) Annual trucking cost from all sources to all stores for direct network. (3 marks)
- Q4** (a) Discuss **TWO (2)** opportunities for improved sustainability in various supply chain drivers. (10 marks)
- (b) Explain **TWO (2)** challenges of supply chains to improve sustainability. (10 marks)

Q5 The following is an excerpt of an article on sourcing strategy used at Mattel.

Mattel's first Barbie dolls were produced in Japan in 1959. Mattel had its own production facilities and maintained tight control to address the possibility of trademark infringement. Mattel inspected materials when they arrived at the factory door. Suppliers were closely monitored for problems such as lead-based paint & vendors were terminated for violations. By 2007 about 80% of the world's toy production was made in China. Nearly 80 % of toys coming to the U.S. were made in China. Mattel produced about 65 % of its toys in China. Most of these toys were produced in about 5,000 factories located in Guangdong province owned by Hong Kong entrepreneurs. Toy distribution had evolved from specialty retailers to mass market companies such as Wal-Mart who pressured the suppliers to drive down costs. Mattel had moved manufacturing to China in the 1980s. Mattel prohibited subcontractors using multiple layers of additional suppliers. Mattel required vendors to notify the company of all subcontract deals with option inspects them. Mattel had 200 employees based in Hong Kong whose sole responsibility was training and supervising its Chinese contractors.

As the supply chain adds levels, it becomes increasingly impossible to inspect the lower tiers. These companies work on thin margins, and lack the size and financial resources to invest in quality improvements. It is essential that Mattel's first tier suppliers recognize the importance of product safety and integrity, and that their performance is consistent with Mattel's expectations. This recognition, would then need to be passed on to each successive tier of the supply chain

Source: <https://nptel.ac.in/courses/110108056/module3/Lecture12.pdf>

- (a) Outline **THREE (3)** approaches of risk sharing that Mattel can use to manage its supplier based on the case study above. (15 marks)

- (b) Explain **TWO (2)** risks of using a third party by Mattel. (5 marks)

-END OF QUESTIONS-

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