MACHAKOS UNIVERSITY

University Examinations 2021/2022 Academic Year

SCHOOL OF BUSINESS, ECONOMICS AND HOSPITALITY AND TOURISM MANAGEMENT

DEPARTMENT OF BUSINESS ADMINISTRATION AND FINANCE

THIRD YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF COMMERCE (PROCUREMENT OPTION)

BMS 317: PRINCIPLES OF SUPPLY CHAIN MANAGEMENT

DATE: 22/8/2022   **TIME: 2.00-4.00 PM**

INSTRUCTIONS

Attempt Question ONE and any other TWO question

QUESTION ONE: (30 MARKS)

P&G, UNILEVER AND COCA-COLA

FMCG industry is typically the products sold to customers at a low cost and will be completely consumed within 1 year. The nature of this industry is the short product life cycle, low profit margin, high competition and demand fluctuation. This section will present the case studies of P&G, Unilever and Coca-Cola respectively. Forecasting and new product introduction has always been the issues for many FMCG companies, P&G is no exception. To cope with this, P&G conducts a merchandise testing at the pilot stores to determine the customer's response to new product before the launch. The result is that the forecast accuracy is improved because a demand planner has an additional source data to make a better decision. Moreover, products can be shipped to stores in-time then lost sales is minimal.

Unilever also feels that the competition in FMCG industry has significantly increased. They have to launch the new products on regular basis but the forecasting of new product is difficult. So, they create a better classification of new products (base, relaunch, repack, new) using a regression model to identify potential forecast errors for each type of new product. Coca-Cola doesn't really have many stocks keep units when compared with other companies in the same industry. However, products go to over 2.4 million delivery points through over 430 distribution centers. Managing transportation at this scale is the absolute challenge.

In order to streamline the delivery, Coca-Cola implemented a vehicle routing software. The reason is that is the software vendor has a very good relationship with Coca-Cola's legacy ERP software vendor. Moreover, the vendor has a solid connection with the university who can help to develop the algorithm that fits in with the business' needs. The result is that transportation planners at each distribution center can use the new tool to reduce travelling time/distance on daily basis.

Required:

a) Coca-Cola implemented a vehicle routing software to solve the challenge of transportation. Explain FIVE factors that they might have considered to justify this move. (10 marks)

b) In reference to the case, demand forecasting has always been an issue for many FMCG companies. Explain FIVE hindrances to accurate forecasts. (10 marks)

c) At Coca cola, products go to over 2.4 million delivery points through over 430 distribution centers. Propose FIVE strategies that can be adopted to ensure supply chain efficiency. (10 marks)

QUESTION TWO (20 MARKS)

a) Supply chain decisions are made at different phases. Describe FIVE attributes of supply chain decisions made at the Planning level. (10 marks)

b) Some organisations find it necessary to adopt both push and pull systems to manage demand in supply chain. Explain FIVE reasons for the establishment of a decoupling point in such arrangements. (10 marks)

QUESTION THREE (20 MARKS)

a) Supply chain vulnerability is a challenge that managers cannot overlook in the current business world. Discuss FIVE supply chain risks that Kenyan organisations should prepare for in the advent of 2022 Kenyan elections. (10 marks)

b) Discuss FIVE cost elements that should be considered when making a decision to outsource the manufacturing function of an organisation. (10 marks)

QUESTION FOUR (20 MARKS)

a) Explain FIVE ways in which a manufacturer of industrial trucks can leverage on Post sales services for a competitive advantage. (10 marks)

b) The use of block chain technology is a recent development in the quest for automation of supply chains. Explain FIVE benefits that would accrue to an organisation that makes use of such technology. (10 marks)

QUESTION FIVE (20 MARKS)

a) Your organisation is contemplating to adopt supply chain integration. Explain FIVE factors to consider when choosing the supply chain partners to integrate its operations with. (10 marks)

b) Discuss the challenges that a supply chain officer may face when measuring supply chain performance of an organisation. (10 marks)