

The
Management
University
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POSTGRADUATE UNIVERSITY EXAMINATIONS

SCHOOL OF MANAGEMENT AND LEADERSHIP

DEGREE OF MASTER OF BUSINESS ADMINISTRATION

MBA 504: SUPPLY CHAIN MANAGEMENT

DATE: 1ST AUGUST 2024

DURATION: 3 HOURS

MAXIMUM MARKS: 60

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **FOUR (4)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **TWO** questions.
6. Question **ONE** carries **30 MARKS** and the rest carry **15 MARKS** each.
7. Write all your answers in the Examination answer booklet provided.

QUESTION ONE

Read the Case Study below carefully and answer the questions that follow

SUSTAINABLE GREEN SUPPLY CHAIN MANAGEMENT

A major challenge faced by firms of all sizes and industries is to become more responsible and accountable towards the environment and society. It has been widely recognized that they must address the issue of sustainability in their operations and management of supply chains. To widely adopt and develop sustainability, there should be an increased attention on supply chains. There are two terms that link sustainability and SCM concepts closely: green supply.

Chain management (GSCM) and sustainable supply chain management (SSCM). A number of literature views in the areas of green and sustainable supply chains have been published in the recent few years. A number of definitions of sustainable and green supply chains are present in the literature. Supply chain management refers to the planning and control of materials, information flows and the logistics activities within an organization and also between multiple firms. The integration of sustainability with supply chain management has emerged as an ubiquitous topic among academicians and practitioners. Sustainability has been popularly defined as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

The concept of triple bottom line is based on the notion that companies should consider environmental and social aspects rather than focusing on purely economic value. To achieve an accepted level of sustainability, a firm should address environmental or ecological issues along with meeting the social standards across all levels of their supply chains. The integration of environmental, economic and social performances to achieve sustainable development is a major challenge for all businesses. Many firms are now undertaking major initiatives to make their supply chains greener in response to stricter governmental regulations and increased public awareness of environmental protection.

The scope of GSCM ranges from

green purchasing to integrated green supply chains flowing from supplier till end customer, and even closing the supply chain by incorporating reverse logistics. Only by implementing “greener” approaches in their business operations companies can cope with the pressures from customers, buyers, communities, government regulators, non-governmental organizations and media who have increasing concern for environment.

Required:

- a) Green supply chain is a process of using environmentally friendly inputs and transforming the inputs through change agents, by which products can be improved and recycled. Explain five principles of green supply chain management in relation to the above statement.

(15 marks)

- b) From the case study, only by implementing “greener” approaches in their business operations companies can cope with the pressures from customers, buyers, communities, government regulators, non-governmental organizations and media who have increasing concern for environment. Explain the negative effects of waste in green procurement.

(15 marks)

QUESTION TWO

- a) Supply chain management is a system approach that is highly interactive and complex. Supply chain include; firms’ internal functions, upstream suppliers and downstream customers. Discuss these internal functions, upstream external suppliers, External downstream supply chain.

(5 Marks)

- b) A company uses 50,000 of item X per annum. Each item costs \$10, the ordering cost is at \$ 150 per order and the carrying cost is at 15% per annum, i.e. it costs \$ 1.50 to carry item X in stock

- i) Determine E.O.Q. using both the graphical and algebraic approach. **(5 marks)**

- ii) Calculate the number of orders to be placed with suppliers. **(5 Marks)**

QUESTION THREE

- a) The following data relates to Jambo Ltd. It provides observations of sales for a product (y) and advert expenditures (x) for the year 2023.

NO.	X	Y	XY	X ²
	Sh. '000'	Sh. '000 000'		
1	15	180	2700	225
2	12	140	1680	144
3	20	230	4600	400
4	17	190	3230	289
5	12	160	1920	144
6	25	300	7500	625
7	22	270	5940	484
8	9	110	990	81
9	18	240	4320	324
10	30	320	9600	900
Σ	180	2140	42,480	3616

Required:

- i. Obtain the line of best fit.
- ii. Interpret a and b
- iii. What is the predicted sale for advert expense of Sh.32, 000?

Note: all workings to 2 decimal places.

(10 Marks)

- b) A value chain analysis is linear map of the way in which value is added by means of supply chain in an organisation. According to Michael Porter's value chain model, the activities conducted in any organization can be divided into two categories. By diagrammatic illustration discuss the activities of value chain model.

(5 Marks)

QUESTION FOUR

- a) Forecasting is prediction of events which are to occur in the future, a method for translating past experience into estimates of the future. List and discuss any three classifications of forecasting techniques and Importance of forecasting. **(5 Marks)**
- b) Agile supply chain aims to develop a flexible and reconfigurable network with partners to share competencies and market knowledge in order to survive and prosper. Analyze five foundations/ principles of Agility supply chains.
(10 Marks)

