



QUALIFICATION : B COM HONOURS
MODULE : SUPPLY CHAIN MANAGEMENT
CODE : LMA8X02
DATE : NOVEMBER 2017 MAIN EXAMINATION
DURATION : 180 MINUTES
TIME : 08:30 – 11:30
TOTAL MARKS : 140 MARKS

EXAMINER(S) : DR D KUMAR
(EXTERNAL) MODERATOR(S) : DR KR LAMBERT
NUMBER OF PAGES : 3

INSTRUCTIONS TO CANDIDATES:

- Question papers must be handed in.
- This is a closed book assessment.
- Read the questions carefully and answer only what is asked.
- Number your answers clearly.
- Write neatly and legibly
- Structure your answers by using appropriate headings and sub-headings.
- The general University of Johannesburg policies, procedures and rules pertaining to written assessments apply to this assessment.
- Answer each section on a different answer sheet.
- Answer all questions.

Case Study – Shoprite Checkers

Shoprite Checkers (Shoprite) is the largest fast moving consumer goods retailer in African, with its head office in Brackenfell, Cape Town. Shoprite consists of wholly owned subsidiaries, with more than 143 000 staff and 14 different brands such as *Shoprite, USave, Checkers, Computicket, OK, House & Home* and *Hungry Lion*. Shoprite's products and services range from basic to upper end food and furniture to pharmaceuticals and financial services, satisfying our customers' needs in an all-encompassing shopping experience. Shoprite was ranked as number 1 retailer in South Africa by the Sunday Times brand survey¹.

In its most basic form the supply chain consists of strategically placed centralized distribution centres linking the flow of product from vendors to stores with customer demand driving the movement of product. Vendors deliver products to the centralised distribution centres. Merchandise is delivered to stores by a variety of trucks and trailers based at distribution centres throughout the country. The fleet is owned by the Group and operates 24 hours a day, seven days a week.

In the financial year 2016, Shoprite had annual revenue of ZAR 130 billion, with profit of ZAR 7.3 billion. Average inventory for the year was ZAR 24 million, with total cost of goods at ZAR 91.25 million. The account receivables for the same year were 32 days and payables at 24 days.

Answer all the following questions based on the above case study

- 1.1. Draw a supply chain diagram for the Shoprite supply chain.
Explain all the supply chain flows.
[10]
- 1.2. Analyse the supply chain issues faced by Shoprite's overall supply chain.
[20]
- 1.3. As indicated, cost and delivery lead time are key to Shoprite's success.
Draw a SCOR level 2 process flow diagram for its end-to-end supply chain.
[20]
- 1.4. In your view, explain in detail the bullwhip effect faced by Shoprite.
What remedies do you propose to reduce the bullwhip effect?
[20]
- 1.5. Calculate the following for Shoprite for the financial year 2016:
 - a. Inventory days [10]
 - b. Cash-to-cash cycle time [10]
 - c. If cash-to-cash cycle time for this financial year is projected to be 10 days,
how much inventory reduction in ZAR value is required for this year?
[10]

- 1.6. In your view, explain what is meant with a centralised distribution model and a direct distribution model. Compare the two models for their benefits and drawbacks. [20]
- 1.7. Benchmarking:
- a. Analyse different approach that Shoprite should use to benchmark its supply chain. [10]
 - b. In your opinion, how should Shoprite benchmark its supply chain performance? [10]
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