

University of Eswatini
Faculty of commerce
Department of business administration
Supplementary examination
Jan 2020

Title of the Paper: Operations management 1

Degree : BUS 431 Full time

Time allowed : Three (3 hours)

Instructions:

1. THIS PAPER CONSIST COMPULSORY CASE STUDY
2. ANSWER ALL QUESTIONS IN THIS PAPER

Note: You are reminded that in assessing your work, account will be given of accuracy of language and the general quality of expression, together with layout and presentation of your final answer.

THIS PAPER MUST NOT BE OPENED UNTIL THE INVIGILATOR HAS GRANTED THE PERMISSION

BE BLESSED AND PROSPER!!!!

READ THE CASE STUDY AND ANSWER THE QUESTIONS THEREAFTER

CASE STUDY: THE SUPER GRIP TYRE COMPANY PTY LTD

The Matsapha Tyre Company (Pty) Ltd is the supplier of tyres to the majority of motor vehicle manufactured in ESwatini. The quality standard the motor vehicles manufactures require are very high. The market in which Matsapha Tyre Company Pty Ltd is involved in highly competitive. Its competitors are waiting for an opportunity to become part of the market. Therefore the company cannot afford to produce inferior quality tyres. A range of tyres is produced for high performance models of well-known manufacturer. In late 2017 and early 2018 the manufacturer started to complain about the quality of tyres received from Matsapha Company Pty Ltd. Manufacturer identified the problem the main cause was ballon forming on the inside sidewall of the tyre. As a result the strength of the sidewall is compromised and it can lead to completely blowout of the tyre. This would result in a serious accident involving serious damage to property and loss of life.

At first, Matsapha Tyre Company was indignant that the vehicle manufacturer had insinuated that the tyres were of inferior quality. Later in 2018, Matsapha Tyre also started to receive complaints from tyre fitment centres. The organization was slow in responding to the complaints. Eventually the vehicle manufacturer threatened to suspend the contract, and customers also complained to a well-known website featuring complaints. Thereafter, Matsapha Tyre Company reluctantly, agreed to a recall of that brand of tyre. The tyres recalled were produced at Super Tyre factory in China. Management of Matsapha Tyre Company from Head Office in Johannesburg was calling for the closure of the plant in Eswatini.

Matsapha Tre Company conducted a very thorough investigation into the causes for the problem. It alluded to the fact that the design specifications, as received from the vehicle manufacturer, were incorrect and that the tyres should never have been fitted to high performing models. It further claimed that the shock absorber were too close to the tyre and that this was causing friction between the tyre and the shock absorber when the car was driving at high speeds. There was an acrimonious debate between the two organizations, without any real solutions to the problem.

The complaints on the complaint website increased exponentially over this time. The Automobile Association (AA), Council for Scientific and Industrial Research and Eswatini Standards Authority all got involved in the dispute. The investigation of the three organizations uncovered a disturbing fact. The same model of tyre had previously displayed similar symptoms on another manufacturer's high-performance model. This was never made public.

Source: - operations management by D Kruger and R Ramphal

Answer all questions

Question 1

The main cause of the tyre issue was vehicles and tyre designs. Prepare a report to management of Matsapha Company in Johannesburg and **discuss** any five phases required during product design and development process? **25 marks**

Question 2

Complaints from tyre fitment centres would affect the future capacity storage of this inferior quality tyre because people would not buy them anymore. **Discuss** any five importance of capacity decisions required for supplying the tyres? **25 marks**

Question 3

Given the data information below.

- a. Develop a three period simple moving average for Matsapha Tyre sales? 10 marks
- b. Develop a three-period weighted moving average using factors of 0.6; 0.3; and 0.2 10 marks
- c. Discuss the differences between the two methods and which one would recommend for Matsapha Tyre Company

Data required for preparing Matsapha Tyre Company's forecast

Month	Quantity ('000 of tyres)
January	10
February	12
March	13
April	16
May	19
June	17
July	11
August	22
September	31
October	18
November	16
December	14

Question 4

The same model of tyre had previously displayed similar symptoms on another manufacturer's high-performance model. The non-disclosure of information was unethical. Discuss any five ethical issues that could arise from operations management. **25 marks**