



MANICALAND STATE UNIVERSITY OF APPLIED SCIENCES

FACULTY OF AGRIBUSINESS AND COMMERCE

DEPARTMENT OF BUSINESS MANAGEMENT

PRODUCTION AND OPERATIONS MANAGEMENT

MODULE CODE: HBM411

SUPPLEMENTARY EXAMINATION

MAY/JUNE 2022

DURATION: 3 HOURS

EXAMINER: MR MAKIWA

INSTRUCTIONS

- 1 Answer all questions in Section A and any three questions in Section B.*
- 2 Section A carries 40 marks whilst Section B carries 60 marks.*
- 2. Total marks 100.*
- 3. Credit will be given for appropriate use of examples.*

SECTION A: COMPULSORY

(Answer all questions in this section. Section A carries 40 marks)

Question 1

Read the following case and answer questions that follow.

Govt launches Motor Industry Development

Policy Enacy Mapakame and Africa Moyo

Government has launched the Zimbabwe Motor Industry Development Policy 2018-2030 (ZMIDP) as part of efforts to promote growth of the local motor industry and increase capacity utilisation by over 90 percentage points in the next 12 years. Successful implementation of the policy should see capacity utilisation for local car assemblers improve from the current rate, which is under 10 percent to full capacity by 2030 while simultaneously creating employment for the sector and other downstream industries.

The local motor industry has been battling cheap imports, low capacity utilization and low demand. Industry, Commerce and Enterprise Development Minister Dr Mike Bimha said the ZMIDP should bring a positive out-turn for the industry and is also expected to employ at least 20 000 by 2030. "The ZMIDP is to spearhead the revival of the motor industry sector in Zimbabwe," said Dr Bimha at the launch of the policy last week.

"The sector should be developed to a level where it would be used to benchmark with other sectors of the economy. The objective of the policy is to promote utilisation of available local raw materials and components in the vehicle assembling process," he said.

The motor industry in the country has historically proven to be a significant contributor towards employment creation, value addition as well as gross domestic product (GDP). The sector has however lost its dominance due to the influx of imports especially pre-owned vehicles resulting in a dip in capacity utilization.

Numerous spare parts distributors also emerged that were offering inferior quality spares, which worsened the situation. The ZMIDP will therefore see a gradual approach being adopted in eliminating second-hand vehicle imports into the country through fiscal measures. "Under the same strategy, a pre-shipment inspection policy for second hand vehicles will be adopted. The policy will be benchmarked with international best practices," said Dr Bimha.

In light of the policy, Government departments and all parastatals will be compelled to purchase locally assembled vehicles for their departments. Dr Bimha added Government was cognisant of the need to support the development of the sector by offering services such as investment finance at affordable rates, exports incentives to vehicle assemblers and proffering customer funding to stimulate demand.

One of the constraints raised by the domestic market is that locally assembled vehicles are more expensive compared to imports. "The banking fraternity is expected to provide financing to the general populace to buy locally assembled vehicles. Other measures will include establishment of Special Economic Zones for motor vehicle production," said Dr Bimha. He added, to address consumer needs of choice, local assemblers will be allowed to grow their economies of scale in the pick-up truck segment while the rest of other types of vehicles which are not produced locally will be imported.

QUESTION ONE

- a) What are the challenges that the motor industry is facing? (10 marks)

- b) Evaluate the strategies that Government is proposing for implementation
(10 marks)
- c) Discuss the concept of capacity utilisation of what significance is it to business organisations?
(10 marks)
- d) How do you envisage the revival of the motor industry given the current operating environment?
(10 marks)

[Total: 40 marks]

SECTION B

*(Answer any **three (3) questions** from this section. Each question carries 20 marks)*

Question 2

With the aid of examples describe how Total Quality Management can be implemented to ensure quality products **[20 marks]**

Question 3

From your work-related learning experience, discuss the attributes of lean operations and show how JIT can facilitate lean operations in the organisation at which you were attached. **[20 marks]**

Question 4

Discuss the advantages of the following to the organisation of your choice:

a. Marketing function (10 marks)

b. Operations function. (10 marks)

[20 marks]

Question 5

The following data relate to Toyota Company, a motor vehicle assembly plant based in Mutare.

Year	Sales (Units)
2015	100
2016	110
2017	122
2018	130

2019	139
2020	152
2021	164

Use the sales data given above to determine:

- (a) The least squares trend line, (15 marks)
- (b) The predicted value for 2022 sales. (5 marks)

[Total: 20 marks]

(Hint. To minimise computations, transform the value of x (time) to simpler numbers. In this case, designate year 2015 as year 1, 2016 as year 2, etc.)

Question 6

A manufacturer is considering two different processes for making a new product x. The first process uses fixed costs of only \$50 000 per year and variable costs of \$700 per unit. The second process has fixed costs of \$400 000 but has variable cost of only \$200 per unit.

- a) What is the break-even quantity beyond which the second process becomes more attractive than the first? (10 marks)
- b) If the expected annual sales for the product is 800 units, which process would you choose? (10 marks)

[Total: 20 marks]

END OF EXAMINATION PAPER