



FACULTY OF BUSINESS

FINAL EXAMINATION

Student ID (in Figures) :

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Student ID (in Words) : _____

Course Code & Name : **FIN5103 Supply Chain Finance**
Semester & Year : May- August 2020
Lecturer/Examiner : Ms. Rosnah Mohamad Noor
Duration : 3hours

INSTRUCTIONS TO CANDIDATES

1. This question paper consists of 1 parts:
PART A (60 marks) : ONE case study with THREE (3) questions. Answer ALL questions and to be written in the Answer Booklet provided.
PART B (40 marks) : TWO (2) structure questions. Answer ALL questions and to be written in the Answer Booklet provided.
2. Candidates are not allowed to bring any unauthorized materials except writing equipment into the Examination Hall. Electronic dictionaries are strictly prohibited.
3. This question paper must be submitted along with all used and/or unused rough papers and/or graph paper (if any). Candidates are NOT allowed to take any examination materials out of the examination hall.
4. Only ballpoint pens are allowed to be used in answering the questions, with the exception of multiple choice questions, where 2B pencils are to be used.

WARNING: The University Examination Board (UEB) of BERJAYA University College regards cheating as a most serious offence and will not hesitate to mete out the appropriate punitive actions according to the severity of the offence committed, and in accordance with the clauses stipulated in the Students' Handbook, up to and including expulsion from BERJAYA University College.

Total Number of pages = 5 (Including the cover page)

PART A : CASE STUDY (60 MARKS)

INSTRUCTION(S) : Answer all **THREE (3)** questions. Write your answers in the Answer Booklet(s) provided.

The Impact of Business Change

The markets and products of an established old-line company were changing radically. The company needed to completely revamp its inventory, manufacturing and product support policies, procedures and practices to reflect basic changes in its product line from large, long lead-time, expensive long-lived engineered systems to relatively low-value, standalone, near-consumer-product class units that support personal computers. It also needed to face up to the need to take the profit hit resulting from disposing of obsolete inventory if it wanted to get the balance sheet into shape and institute a program to pre-vent the buildup of obsolete inventories by disposing of slow movers on a regular basis.

This medium-sized manufacturer of computer peripheral devices was seeking to improve its balance sheet and profit and loss by reducing inventory and the associated carrying costs, while improving customer service. Often, a cost and performance benchmark can help to pinpoint areas of difficulty. Then, if costs are out of line in an area, a comparison to best practices may highlight the business pro-cases that are the basis for the problem.

This company was in the later stages of a transition from relying on the main-frame computer market for most of its sales to small systems related market. The small systems business was growing while the large systems were holding steady or declining. A logistics cost and performance benchmark showed that corporate logistics costs were almost 7% of sales. In dollar costs, they were several times greater than costs of the upper quartile of all industry cost comparison groups.

Transportation costs were below average or in the lowest quartile for all divisions. Warehousing and order processing costs were average or below in all divisions except the one with the highest inventory, and administration costs were about average in two divisions and higher than average in two. The division with the highest inventory had order processing costs one half to ten times higher than the comparison groups. In all divisions, inventory carrying costs were over half of the total logistics costs, an extremely high number. In the benchmark industry comparison groups, inventory carrying costs were typically about 25% of total logistics cost. So, while there was room for some improvement in supply chain administration and warehousing costs, the bulk of the problem was in inventory management.

The division with the highest inventory carrying costs was a service and spare parts operation, so it might be expected that inventory and order processing costs would be high, but they were high even against a service parts comparison group. Order processing costs were one half to ten times higher, and inventory carrying costs were almost five times as much as the upper quartile companies of that group. The service division was at 10% of the average turns of its comparison group.

Despite the high inventory, order entry and administration costs, order cycle time was twice the spare parts comparison group and line fill rate was significantly lower. This indicates product mix problems and the likelihood of large amounts of obsolete and slow-moving inventory.

The comparison to best policies and practices indicated that there were issues in purchasing, materials management, inventory planning and management, and manufacturing operations. A good deal of purchasing was done on consignment, but with a requirement to buy a specified quantity each quarter. Parts were often purchased in large quantities to obtain price breaks. Also, custom parts were often used when a product might have been designed with off the shelf parts. This required buying large quantities to make it worth-while for the supplier to tool up to produce the custom items, a high-risk practice in a rapidly evolving high tech business. Many inventory management and service policies appeared to be carried over from the time when the main frame related products were dominant, and the business was building and servicing larger, more complex, specialized, and costly units with a long life. End of product life spares procedures, management of engineering changes, field support practices, and product repair and parts availability policies were all based on a line of large, costly, long life products.

Manufacturing's performance was judged on lowest unit cost and high over-head absorption, a practice that often leads to over production and incorrect product mix. Also, routine, but essentially unplanned, heavy promotions and "spiffs" by the sales department to "make the numbers" at every month and quarter end had destroyed any normal customer demand pattern that might have existed. The customers were waiting for the promotions that they knew would come before they ordered. These promotions didn't even necessarily involve products known to be in oversupply, or even in stock. It was just whatever sales decided to promote. The adverse effect of this on production, parts availability, and material and capacity planning, and on the inventories of non-promoted product in stock can easily be seen.

An inventory analysis by division showed that across the board in all divisions, raw materials and purchased parts, finished goods and other (obsolete and slow-moving) inventories were high and turns were low. A set of recommendations for short-term inventory reduction and long-term business process and policy changes were prepared and presented to management.

In purchasing and materials management, it was recommended that the total purchasing power of the corporation be leveraged to obtain more favorable purchasing and consignment agreements by centralizing the purchasing function. At the same time, local materials management functions would be strengthened to improve requisitioning and materials usage and upstream supply chain partnerships would be established to improve material flow and reduce purchased parts inventories.

In inventory planning and management, a centralized logistics function was recommended. This organization would own all finished goods inventory and have responsibility for its distribution. Logistics would also develop written policies and procedures for inventory planning, management and reporting; implement an integrated forecasting and inventory planning business process and information system; and perform the forecasting and inventory planning process. All inventories would be managed more intensively to avoid excess and obsolete and active inventories would be deployed and re-deployed based on the forecast requirements.

There also was a need to get the promotion process under control to avoid sudden unanticipated demand on the plants and to move the slow-moving product. Even if the process of period-end promotions were to be continued, they needed to be planned. Planning the promotions even four to six weeks ahead, instead of springing them on the manufacturing plants at mid-month for month-end delivery, would produce a vast improvement. Changing manufacturing performance criteria from lowest unit cost and high absorption to meeting the schedule in time and quantity also needed to be done to ensure proper inventory control and improved service levels.

In service parts and repair, the support policies and practices on small systems needed to be reevaluated. For instance, given the downward trend of cost versus performance in electronic products, it might be more economical to replace an old unit with a new unit of comparable performance at a flat charge, rather than store and supply spare parts and provide repair services for discontinued models. It was also recommended to work down spare parts inventories as quickly as possible and improve management of field service parts supplies.

A company that had been high tech before high tech was even a common term was failing to recognize the acceleration of change in its market, and the true nature of new markets that it was now in more or less by default. In a time of rapid technological change, it's essential to recognize the impact of that change on supply chain management policies and practices, and its potential impact on the financial fortunes of the company.

Question 1

Discuss the impact of the product life cycle on strategic fit between implied demand uncertainty and supply chain responsiveness. (20 marks)

Question 2

Evaluate any **FOUR (4)** ways that a supply chain can help reduce the impact of uncertain demand and which is most appropriate to use? (20 marks)

Question 3

- a) Explain any **FOUR (4)** external factor which can make changes to business. (8 marks)
- b) Analyze the above four factor (a) in the context of current supply chain finance. (12 marks)

(Total:60 marks)

END OF SECTION A

PART B : STRUCTURE QUESTIONS (40 MARKS)

INSTRUCTION(S) : Answer all **TWO (2)** questions. Write your answers in the Answer Booklet(s) provided.

Question 1

Examine **FOUR (4)** reasons for lacking of supply chain coordination and its impact on the performance of supply chain finance in an organization. (20 marks)

Question 2

Assess **FOUR (4)** roles of the major drivers of supply chain performance in the competitive strategy. Provide an example for each of the drivers. (20 marks)

END OF EXAM PAPER