RTP - November 2022

PAPER 5 : STRATEGIC COST MANAGEMENT AND PERFORMANCE EVALUATION

Dear Student Friends,

As usual, most of the questions are repetitive in nature with just a change in Company's name. Hence, to avoid the duplication of work, I have excluded the repeat questions and included only new questions with answers here.

Summary of November, 2022 - Revisionary Test Paper (RTP)

RTP Q. No.	Reference of similar Question from our classroom notes
1	Covered in RTP Nov. 2019 & Nov. 2021. Also covered in our Amendment Batch 5 Notes.
2	It is a new question, hence it is covered below with answer.
3	Covered in Version 4 Classroom Notes / Volume III / Q.26/128 Also covered in RTP Nov. 2019
4	Covered in Version 4 Classroom Notes / Volume IV / Q.10/80 Also covered in RTP Nov. 2019
5	It is a new question, hence it is covered below with answer.
6	Covered in Version 4 Classroom Notes / Volume IV / Q.7/44 Earlier Name : Tripod Ltd.
7	Covered in Version 4 Classroom Notes / Volume III / Q.6/15 Also covered in RTP Nov. 2019 with name H Automobile Group
8	Covered in RTP Nov. 2019
9	Covered in RTP Nov. 2021 - Amendment Batch 5 Notes
10	Covered in Version 4 Classroom Notes / Volume III / Q.31/137 Also covered in RTP Nov. 2019
11	Covered in Version 4 Classroom Notes / Volume IV / Q.5/12 Also covered in RTP Nov. 2019
12	It is a new question, hence it is covered below with answer.
For all past RTP's, MTP's, Suggested Answers etc. visit our website, go to Student Corner, Select CA Final SCM&PE, Select Amendment Batch Notes and download the files.	

Question 2

Topic : Supply Chain Management

Nations' Mart is the supplier of packed grocery items to local kirana shops and departmental stores under a franchise model. Such local kirana shops and departmental stores are not an exclusive franchisee of Nations' Mart, because certain other items such as veggies, cosmetics, eggs, and bread etc. which are not offered by Nations' Mart, these local kirana shops and departmental stores are free to buy from other suppliers.

Nations' Mart offers items under its own brand, they purchased these grocery items either directly from manufacturers or from their established suppliers at a significant discount, part of which it passes to such franchisee local kirana shops and departmental stores. It is estimated that such local kirana shops and departmental stores save around 8-12% (of purchase prices) on items supplied by Nations' Mart.

For inbound logistics since its establishment, Nations' Mart relies upon the manufacturer or their established suppliers and in some cases use the service of haulage contractors working on behalf of these manufacturer or suppliers. Nations' Mart purchases items into their large and multi-purpose regional warehouses. Warehouses have facilities for re-package of items in similar units. Each regional warehouse has designated geographical areas to serve.

Nations' Mart sales representatives conduct the meeting with each franchisee (local kirana shops and departmental stores) after every 8 weeks to decide the weekly standing order quantity for the upcoming 8 weeks. Such weekly standing orders delivered to these local kirana shops and departmental stores through specialist haulage contractors local to the regional warehouse. Such local kirana shops and departmental stores can increase the weekly order through phone or e-mail, but can't reduce their standing order requirements until the next meeting with a sales representative at Nations' Mart.

Required :

The board of directors recognised the need to review the supply chain to enhance the brand recognition of Nations' Mart and also address the issue raised by the franchisee regarding flexible ordering and delivery system. ADVISE the board, how Nations' Mart can re-structure its supply chain presuming it keeps on supplying the re-packaged items.

Answer 2

The supply chain is a network that consists of the flow of materials, goods, and related information among manufacturers, suppliers, retailers, and consumers. The supply chain can be divided into two parts based upon flow, directions, or source and destination. Towards the supplier side, it is termed as **Upstream Supply Chain** and towards the consumer side, it is termed as **Downstream Supply Chain**.

Nations' Mart can enhance its brand recognition through Upstream Supply Chain Management in the following ways -

1. Process of placing the order

Nations' Mart should review the process of placing the order, **e-procurement** should be introduced to the possible extent and information should be shared with the manufacturers and suppliers allowing the suppliers' access to forecasted demand. Which in turn reduces costs and improves the efficiency of the supply chain at suppliers' end and the same will benefit Nations' Mart for sure.

Note :- This will lead to an extended value chain that will be capable to generate enhanced value.

2. Inbound logistics

Nations' Mart can revamp its logistics in either of the following ways -

i. Develop in-house logistics capabilities – Nations' Mart can look forward to owning the trucks and tempo to develop in-house logistics capabilities, it can apply its logo on the entire fleet, this will enhance the brand visibility.

ii. Use third-party logistics rather than manufacturers and their established suppliers and that too in conjunction with a review of its outbound logistics.

The cost of inbound logistics can be offset by reduced prices by such manufacturers and their established suppliers.

Note :- A detailed cost-benefit analysis should be conducted to assess whether these options are financially viable.

3. Outsourcing of the warehousing and re-packaging

Nations' Mart may look for an integrated logistic partner who also offers storage and warehousing solutions, since it will be a large contract (especially, if consolidated for all the warehousing needs of Nations' Mart), for any integrated logistic partner hence able to negotiate a good price.

Note :- It is a strategic decision, because if the warehousing and re-packaging are outsourced, then Nations' Mart can strategically reposition itself and focus on brand awareness, hence further critical evaluation of core capabilities and competencies is required.

Nations' Mart can enhance its brand recognition and address the issue raised by franchisee regarding inflexible ordering and delivery system through Downstream Supply Chain Management in the following ways -

1. Shift to Pull model of the supply chain

The inflexibility of the ordering and delivery system can be eliminated, if Nations' Mart shifts to the pull model of the supply chain. This enables the franchisee (local kirana shops and departmental stores) to have flexibility while ordering (quantity and time) to match their needs as per actual demand.

Note :- This may result in low overall demand, which may cause Nations' Mart not able to get the same substantial discount which earlier it is getting from manufacturers or from their established suppliers.

But if the existing practices continued then Nations' Mart may lose some of the franchisee (local kirana shops and departmental stores), hence cost-benefit analysis is essential.

2. Use of IT solution

In order to streamline the downstream supply chain, Nations' Mart need to use IT solution (especially if they shift to the demand-driven system) for following purposes -

i. To collect and consolidate the orders from the local kirana shops and departmental stores for each item individually and further place the order accordingly.

ii. Use of E-POS (electronic point of sale) at local kirana shops and departmental stores to have an overview of sales information, stock level, and customers' buying habits and trends. This will auto streamline the ordering and distribution. This will result in an extended value chain, hence, may be able to generate greater value for customer.

Note 1 :- If IT is used extensively then Nations' Mart can directly reach consumers through the E-Commerce platform. The terms of the franchise agreement need to be analyzed to judge the viability of direct sales by Nations' Mart.

Note 2 :- If local kirana shops and departmental stores allowed to place orders online then the sales representative which were earlier responsible for meeting with these local kirana shops and departmental stores can be re-deployed for marketing and branding activities.

3. Outbound logistics and distribution arrangements

As mentioned earlier, Nations' Mart can club the contract regarding inbound and outbound logistics requirements to negotiate with the logistic contractors. In regard to outbound logistics specifically, rather than relying upon local haulage contractors for regional warehouse, Nations' Mart can go for one single integrated logistics company. This single contract will afford economies of scale.

As mentioned earlier, own logistic abilities can also be developed by owning a fleet of vehicles (instead of outsourcing) which can be used for greater brand visibility by putting the logos and advertisement material on such vehicles. Scheduling of routes shall be done scientifically using some operation research methods such as transportation and liner programming.

Note :- The cost - benefit analysis should be done before taking the decision of owning own fleet of vehicles.

Question 5

Topic : Ethical Dilemma

Capson Industries is an electronic company producing office equipments, is known for the printers which are cost-effective and are durable. In order to maintain and improve competitiveness, Capson focuses on strategic cost reduction through continuous improvement. You are a management accountant and practising independently as a freelance consultant. You are hired as a consultant by the management of Capson and currently evaluating whether to outsource the production of a drum (item code D32) used in its best-selling laser printer or should continue to manufacture in-house in the upcoming year. The outsource vendor quoted the bid price of ₹ 225 per unit of D32 for the upcoming year.

The product engineer explained to you that the toner cartridge is the container that holds the toner powder. The drum unit is an electrically charged cylinder that fuses that toner powder onto paper to create text and images. Based upon the estimates of the marketing department regarding the number of printers to be sold in the upcoming year, the production head estimates the consumption of 40,000 units of D32.

The cost clerk in the accounts department, provided you with the following information (annual, actual till 24th March and budgeted for a remaining week) pertaining to D32 for the year just about to end.

Product Summary	**Cost Summary (Figure in ₹'Lacs)**
Product – Laser Drum	Direct material Consumed – 33.975
Product ID – D32	Direct labour paid – 16.47
HS Code – 84439100	Production overhead (other than leases) – 23.72
Building – in house manufacturing	Lease rental space, plant & equipment – 15.60
Production during the year – 36,000 Units	Administrative overhead (other than leases) – 6.23

You also gather the information relevant to D32, which signify during the upcoming year –

- Direct material prices and direct labour rate expected to increase by 6% and 5% respectively.
- Leases can be terminated, but the cost of termination will be equivalent to a half-a-month rental. Lease rentals are static over the years for the next three years. Space and plant have sufficient idle capacity to absorb the increase in production.

- 60% and 30% of the production overhead and administrative overhead are variable in nature respectively. Rest is fixed and unavoidable. Total variable costs are directly and linearly proportionate to the volume of production. Variable overhead costs expected to increase by 3% due to the inflation effect.

You are crunching the numbers to advise the management, in the meantime comes VP-Production, who indicates producing D32 in-house will become cheaper in the upcoming year because the production cost will reduce significantly on account of the initiative proposed instead of an increase in it (as quantified by you). Hence he advises you to analyse the decision ignoring the increase in the cost of production. He rather advises you to consider them at a level lower than the current level. Basically, his pain is something else, he detests to see the scope of his work at Capson is getting dwindled and don't want the apple of his eye to be laid-off.

Required :

(i) ADVISE the Board, whether to outsource or to produce D32 in-house.

(ii) You know it is nearly impossible to attain the cost reduction as described by VP-Production in the case of in-house production of D32, but you are also worried about the possible lay-off, which largely depends upon your advice. How would you RESPOND to the dilemma.

Answer 5

(i) Outsource or produce D32 in-house

Since 40,000 units of D32 are required in the upcoming year, hence comparison of cost shall be made using relevant cost pertaining to the upcoming year for 40,000 units.

Cost of outsourcing :

Particulars	**Amount (in ₹)**
Cost of purchase from outside (40,000 units @ ₹ 225 each unit)	90,00,000
Cost of terminating lease agreements [(15,60,000 / 12 months) x 1/2]	65,000
Total Cost	**90,65,000**

Cost of in-house-production :

Particulars	**Amount (in ₹)**
Direct material cost [(33,97,500 x 1.06) x 40,000 units / 36,000 units]	40,01,500
Direct labour cost [(16,47,000 x 1.05) x 40,000 units / 36,000 units]	19,21,500
Variable Production overhead [(23,72,000 x 60% x 1.03) x 40,000 units / 36,000 units]	16,28,773
Lease Rental (avoidable cost, hence relevant)	15,60,000
Variable Administrative overhead [(6,23,000 x 30% x 1.03) x 40,000 units / 36,000 units]	2,13,897
Total Cost	**93,25,670**

Since the above calculations show that there is a saving of ₹ 2,60,670 (93,25,670 – 90,65,000) if production of D32 is outsourced, rather than producing in-house; hence considering financial information it is worthwhile to outsource the production of D32.

However, prior to makeing any decision, management should consider the following non-financial considerations also -

Reliability of outsourcing vendor in terms of -

(a) Quality of D32 – The quality of D32 delivered by outsourcing vendor must be at par or better than the quality achieved from in-house production.

(b) Continuous and timely supply of D32 – Supply of D32 shall be continuous and on time as per production schedule, else irregular supply can obstruct the production schedule and will lead to late deliveries of Capson.

(c) Ability to supply entire requirements – There is a requirement of 40,000 units of D32 at Capson. The outsourcing vendor must be capable and ready to supply the entire need of 40,000 units (only then lease rentals can be saved).

Impact inside Capson in terms of -

(a) Possible lay-offs – Lay-off has legal implications as well as an enhanced financial burden in the form of compensation cost (against the loss of employment).

(b) Employee morals – Lay-off or shift of idle staff from one department to another will result in low employee morale, which will result in low productivity. However, if workers union is strong, then may also lead to a strike.

(c) Control over value chain – D32 may or may not be a key component according to the engineering department, but Capson need to see it from customers perspective if it is a component which enhances the overall value of printer. If it is a non-value-added component, then it can be outsourced to spare the time in order to focus on strategic aspects.

Apart from these factors, the commercial aspects such as confidentiality, technical know-how, termination of lease as well as relations with lessor and change in market forces (suppliers' bargaining power) shall also be considered.

(ii) Response to the dilemma

Since it is an ethical dilemma, hence the resolution can be best guided by fundamental ethical principles for accounts professionals. Principle of integrity, objectively, due diligence, and professional behaviour applies here.

Following the principle of Integrity, management shall be informed and advised fairly, further considering the objectivity, the biased advice, indications and descriptions of VP-Production shall be ignored completely. The recommendation to management shall be based purely on facts and fair estimates which are collected and analysed with due diligence.

Maintaining professional behaviour and independence, fair recommendations should be submitted to management of Capson, ignoring the personal dejection and verbal inducements of VP-production. Recommendation to management may include the possible impact and effects of the decision.

Personal comments from Rakesh Sir :

When I was going through the above answer of ICAI, I found the grammatical errors and the errors of construction at various places. I have tried to correct them. Apart from the calculation of cost of in house production and cost of outsourcing, the remaining answer is highly subjective and could be different for different students. You need not worry about it and you should write the answer, which you think is fit in your own language.

Question 12

Topic : Pricing Decision

The Gifts Company makes mementos for offering chief guests and other dignitaries at functions. A customer wants 4 identical pieces of hand-crafted gifts for 4 dignitaries invited to its function.

For this product, the Gifts Company estimates the following costs for the 1^{st} unit of the product.

Particulars of Costs	**₹ / unit**
Direct Variable Costs (excluding labour)	2,000
Direct Labour (20 hours @ ₹ 50 hour)	1,000

90% learning curve ratio is applicable and one labourer works for one customer's order.

Required :

(i) CALCULATE the price per piece to be quoted for this customer if the targeted contribution is ₹ 1,500 per unit.

(ii) If 4 different labourers made the 4 products simultaneously to ensure faster delivery to the customer, can the price at (i) above be quoted? COMMENT.

Answer 12

(i) Price to be Quoted :

Particulars	**Average Cost (₹ per unit)**
Variable Cost (other than labour)	2,000
Labour Cost [₹ 1,000 x 90% x 90%]	810
Add : Target Contribution	1,500
Price to be Quoted	4,310

(ii) No, the company cannot quote the above price, if 4 different workers perform the job. Because, learning curve ratio does not apply to non-repeated jobs and we will not get the advantage of learning effect. In that case, the labour cost per unit shall be ₹ 1,000 for each worker instead of ₹ 810. The sales price in such case shall be (2,000 + 1,000 + 1,500) = ₹ 4,500.

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