Test Series: October, 2020

MOCK TEST PAPER

FINAL (NEW) COURSE: GROUP – II

PAPER – 5: STRATEGIC COST MANAGEMENT AND PERFORMANCE EVALUATION

SUGGESTED ANSWERS/HINTS

1. Issue

"Z" electronics manufactures and sells various electronic products through its physical stores. The existing manufacturing system does not take into consider the demand of products in the market. Store managers are allowed to submit only one order per month. A high level of inventory can be seen at "Z" Electronics as compared to the industry average. The store managers tend to keep high level of inventories as a safeguard against stock-outs. Whereas, keeping inventory to meet customer requirement is good, high level of inventories due to inefficient processes is not advisable.

The company also has a longer working cycle because of a long order to deliver time and excess holding of inventory. A significant amount of working capital is blocked due to this practice. Technology changes rapidly and the company is expected to roll out latest products in the market. A product like mobile gets outdated very soon and the company has to resort to discounted sales. This results in financial losses to the company.

The company has identified an opportunity in e-commerce. E-commerce businesses require leaner models and faster response time. The production must be based on the demand from the customer and not on an ad-hoc basis. In the following paragraphs, the importance of supply chain management (SCM) and its applicability in the current case is discussed.

Supply Chain Management (SCM)

Supply Chain Management can be defined as the management of flow of products, services and information, which begins from the origin of products and ends at the product's consumption at consumer's end. SCM also involves movement and storage of raw material, work-in-progress and finished goods. In other words, supply chain management involves management of all activities associated with moving goods from the raw materials stage to the end user. An important objective of SCM is to correlate the production and distribution of goods and services with demand of the product.

The following are the various activities which an organisation carries out to meet the customer requirements (Primary activities under value chain model) -

- Inbound Logistics covering procurement and related activities.
- Operations covering conversion of raw materials into finished products

- Outbound Logistics covering movement of products from plants to end users
- Marketing and Sales
- Service

Supply Chain Management looks each of the above activities as integrated and interrelated to each other. None of the activities can be looked in silos. In the case of "Z" Electronics, there is a restriction on number of orders which a store manager can place. This would lead to excess ordering because of the fear of stock-outs.

The customer demand is completely ignored and hence the production is not in sync with the market demand. This could lead to excess production, higher inventory holding and longer working capital cycles.

The facts presented in the case indicate the following problems at "Z" Electronics:

- Production planning is not based on customer demand & is done on an ad-hoc basis.
- Inventory Holding period is very high (45 days against an industry average of 15 days).
- The working capital cycle is longer.
- The time take to fulfil an order from the store is very high.
- The production is dispatched to a central warehouse for further deliveries to the stores. This could be an inefficient process.
- Liquidation of products at discount for products with low shelf life.

SCM Process and applicability to "Z" Electronics

The SCM process is explained below:

- Plan - The first step in SCM process is to develop a plan to address the requirements of the customer. "Z" Electronics must shift its focus from ad hoc and predetermined production planning to understanding the requirements of customers. Production must be planned based on the demand of products. The focus must be on producing what the customer wants.

- Develop (procure) - In this step, the materials required for production is sourced from various suppliers. A good relationship with supplier is required to ensure that the parts/materials are received as and when required by the production team. It is also important that the vendors supply quality material which is not the case in "Z" Electronics. The company must select suppliers which are dependable and can deliver quality products in the stipulated time. The company must focus in reducing the lead time required for sourcing materials which will reduce the inventory holding period.
- Make - The third step is making or manufacturing the products required by the customer. This is quite different from the existing practice in "Z" Electronics where store managers are allowed to place only one order. This would mean that the company is not considering the ever changing demands and tastes of the customers.
- Deliver - The fourth stage is to deliver the products manufactured for the customers. This stage is concerned with logistics. The time required to deliver to the store in case of "Z" Electronics is very high. The company must evaluate if the centralised warehouse is causing delay in delivery of products to the stores.

  Logistics is one of the important component of the entire supply chain process. Right from procurement of material, movement of raw material in the plants and final delivery of products of customers, logistics play a critical role. An excellent system must be in place to ensure that the movement of materials and final product are uninterrupted.

  Warehousing also plays an important role in today's business environment. The company has a centralised warehouse to meet the needs of all its stores. This would not be the most efficient way. The company must evaluate creation of additional storage facility which would ensure timely delivery of goods to the stores. Newer products can reach the market faster.

Benefits of SCM to "Z" Electronics

SCM looks at the entire value chain process as an integrated process. There is a seamless flow of information and products between suppliers and customers. The customer's requirements would be captured to plan the production. The suppliers would

be intimated to supply the materials according the the production plan. An effective logistics system ensures that movement of materials is seamless. "Z" Electronics can also consider implementing an integrated ERP which would also interact with vendors on real time basis.

The following benefits of SCM can be envisaged for "Z" Electronics -

- Better Customer Service as customer is supplied with what he/she wants in the minimum time.
- Better delivery mechanism for goods.
- Improves productivity across various functions and departments.
- Minimises cost (both direct and indirect).
- Reduces the inventory holding time and improves the working capital cycle.
- Enhances inventory management and assists in implementation of JIT systems.
- Assists companies in minimising wastes and reduce costs.
- Improves supplier relationship.

E-Commerce and SCM

The SCM is the backbone of E-commerce industry. Customers buying products online want deliveries to be faster. Another distinct feature of e-commerce is that buyers could be located in any corner of the country and not just restricted to the cities where "Z" Electronics has physical presence. This definitely means that the company must have an effective Supply Chain Management in place which could meet the customer's requirement.

The existing practice of one order per month from each store would not work in the e-commerce space. Orders can come at any time and from anywhere. Supply Chain Management would be required for success of e-commerce business.

Customer Orders

The company must have an effective mechanism to capture customer orders and feed it into the production planning on a real time basis. An integrated ERP system would be required for this purpose. Any delay in intimating the production team would mean delay

in production and delivery which would not be taken positively by the customers. The existing system of one order per month from a store would not fit the purpose. A real time flow of information would mean lower inventory holding.

Procurement

The material requirements must be communicated to suppliers seamlessly. The company must identify those vendors who can deliver quality materials in the required time frame. A delay in supplies would delay the production process. A company cannot afford this in e-commerce business. Automatic exchange of information using EDI (Electronic Data Interchange) or Integrated ERP systems would ensure that the vendors receive material requirements in a timely manner.

Production

As discussed earlier, the production must be in accordance with the customer order. This requires a shift in approach of the production team. Business environments have shifted from "Customer will buy what we produce" to "We have to produce what the customers require". The company would ideally not produce products to store them and sell later.

Logistics

Logistics would be the backbone of entire e-commerce set up. Right from sourcing of materials to delivery of products at the customer's door step, logistics would play an important role. If the company has an in-house logistics facility, the logistics team must be trained with the requirement of the new business. If the company has outsourced the logistics, vendors must be briefed about the requirements of the e-commerce. The company might have to tie up with new logistic vendors to avoid any delay in deliveries.

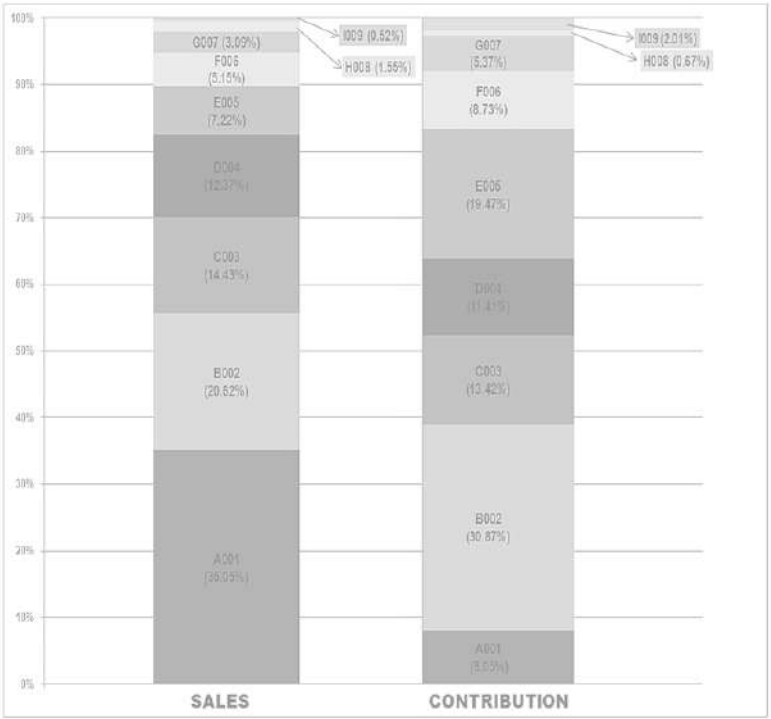
2. "Pareto Analysis"

Model	Sales (.'000)	% of Total Sales	Cumulative Total	Model	Cont. (Rs.'000)	% of Total Cont.	Cumulative Total %
Pareto Analysis Sales				**Pareto Analysis Contribution**			
A001	5,100	35.05%	35.05%	B002	690	30.87%	30.87%
B002	3,000	20.62%	55.67%	E005	435	19.47%*	50.34%

C003	2,100	14.43%	70.10%	C003	300	13.42%	63.76%
D004	1,800	12.37%	82.47%	D004	255	11.41%	75.17%
E005	1,050	7.22%	89.69%	F006	195	8.73%*	83.90%
F006	750	5.15%	94.84%	A001	180	8.05%	91.95%
G007	450	3.09%	97.93%	G007	120	5.37%	97.32%
H008	225	1.55%	99.48%	I009	45	2.01%	99.33%
I009	75	0.52%	100.00%	H008	15	0.67%	100.00%
	14,550	100.00%			2,235	100.00%	

(*) *Rounding - off difference adjusted.*

Diagram Showing "Sales and Contribution"



Recommendations

Pareto Analysis is a rule that recommends focus on most important aspects of the decision making in order to simplify the process of decision making. The very purpose of this analysis is to direct attention and efforts of management to the product or area where best returns can be achieved by taking appropriate actions.

Pareto Analysis is based on the 80/20 rule which implies that 20% of the products account for 80% of the revenue. But this is not the fixed percentage rule; in general business sense, it means that a few of the products, goods or customers may make up most of the value for the firm.

In present case, five models namely A001, B002, C003, D004 account for 80% of total sales where as 80% of the company's contribution is derived from models B002, E005, C003, D004 and F006.

Models B002 and E005 together account for 50.34% of total contribution but having only 27.84% share in total sales. So, these two models are the key models and should be the top priority of management. Both C003 and D004 are among the models giving 80% of total contribution as well as 80% of total sales so; they can also be clubbed with B002 and E005 as key models. Management of the company should allocate maximum resources to these four models.

Model F006 features among the models giving 80%of total contribution with relatively lower share in total sales. Management should focus on its promotional activities.

Model A001 accounts for 35.05% of total sales with only 8.05% share in total contribution. Company should review its pricing structure to enhance its contribution.

Models G007, H008 and I009 have lower share in both total sales as well as contribution. Company can delegate the pricing decision of these models to the lower levels of management, thus freeing themselves to focus on the pricing decisions for key models.

3. (i) Analysis

Competitiveness

	Roop	Centre/s Average
Website hits converted into orders (in percentage)	66.06% (9,915/15,010) × 100	63.71% (12,270/ 19,260) × 100

This ratio shows whether Roop's services are *attractive compared to its competitors*, which is essential if it is going to persist in such a competitive market.

It has performed considerably better than Centre/s average, having converted 66.06% of website hits into jobs, compared to the 63.71% converted by other Centre/s. This is a good outcome.

Financial Performance

	Roop	Centre/s Average
Gross profit ratio	53.15% (48,50,400/ 91,26,000) × 100	47.28% (51,37,740/ 1,08,66,900) × 100

Gross profit ratio is the *measure for financial performance*. It indicates the percentage of revenue which exceeds the cost of goods sold.

Roop's gross profit ratio is 5.87% higher than the average, which is a good result. This could be because of new service pack sales. It is also likely to be because of ratio of senior beauticians to junior beauticians (1.5), which is lower than the average (2) and junior beauticians will invariably be paid less than senior ones.

Quality of Service

	Roop	Centre/s Average
Jobs from repeat customers (in percentage)	15.23% (1,510/ 9,915) × 100	13.08% (1,605/ 12,270) × 100

Quality is a key aspect of Roop's service to customers and *if it is poor, customers will not return*.

Again, Roop has surpassed the other Centre/s on average by 2.15 percentage points. Though, it has a lower ratio of senior beauticians to junior beauticians (1.5) than other Centre/s (2), it might be possible that Roop has a portfolio of enthusiastic staff. So, the quality of work is probably better, thus the higher level of repeat customers.

Flexibility

	Roop	Centre/s Average
Time taken per job (hrs.)	2.43 (24,120/ 9,915)	2.11 (25,880/ 12,270)

The comparison shows that Roop takes longer time to complete a job than the other Centre/s average, which is not really good, and is probably because of they have slightly *less experienced staff* on the whole, but it could also be that they *do a more comprehensive job* than other Centre/s. Given the fact that they have a higher % of return customers than the other Centre/s and they are also graded 9 or 10 by most of the customers (86%). Therefore, this cannot be viewed as too adversely.

Resource Utilization

	Roop	Centre/s Average
Revenue per beautician (₹)	60,840 (91,26,000/ 150)	65,860 (1,08,66,900/ 165)

The *crucial resource in a service company is its staff* and so these indicators measure how this resource is being utilized.

Roop's utilisation of its staff is lower than that of the other Centre/s by ₹5,020 per beautician. This clearly links in with the point that the average time to complete a job is longer at Roop than other Centre/s. However, given that Roop uses a slightly less experienced staff than other Centre/s and the fact that its gross margin is higher than the average, this should not also be viewed too adversely.

Innovation

	Roop	Centre/s Average
Revenue generated from new service packs (in percentage)	23.4% {(7,92,000 + 6,96,000 +6,48,000)/ 91,26,000} ×100	9.5% {(5,28,000 + 5,04,000)/ 1,08,66,900} × 100

Roop is offering a wide variety of service packs to its customers. The ratio of 23.4% indicates that Roop has really outperformed other Centre/s on this front, generating a far larger part of its revenue by the introduction of new service packs, which must have attracted customers. This is a really good performance.

(ii) The **standards** block fixes the target for the performance indicators chosen for each of the dimensions. The targets must meet three criteria – they must be achievable, fair and encourage employees to take ownership. The performance of the organization could suffer if the targets set do not meet these criteria.

The **rewards** block makes sure that employees are motivated to attain the standards. It also examines the properties of good reward schemes which are that they should be clear, motivating and based on controllable factors.

If standards and rewards are set appropriately, the staff will be engaged and motivated and it is then more likely that the goals, i.e. **dimensions**, of the organisation will be achieved

4. (a) (i) JIT Inventory System

"For successful operation of JIT inventory system, the suppliers chosen must be willing to make frequent deliveries in small lots. Rather than deliver a week's or a month's material at one time, suppliers must be willing to make deliveries several times a day and in the exact quantities specified by the buyer."

It is described in the problem that suppliers are not willing to

- make frequent deliveries and
- make supplies in the exact quantities as required

Accordingly, Mr. Bee's doubt is correct on successful implementation of JIT System.

(ii) For each day, 'N' spends Rs.360 per clerk (Rs.90 per hr. × 4 hrs.). Therefore, 'N' spends Rs.1,080 per day to employ three clerks. Annually, this outlay amounts to Rs.2,59,200 (Rs.1,080 per day × 240 days).

Over five years, the outlay would be Rs.12,96,000. If the WCMS is implemented, the initial cost is Rs.1,25,000. If we add the annual cost of Rs.36,000, the total cost over five years amounts to Rs.3,05,000. Since one clerk will be needed as well, 'N' has to incur Rs.4,32,000 over five years to pay clerk (Rs.4,32,000 = Rs.90 × 4 hrs. × 1 clerk × 240 days × 5 years). Therefore, the total cost of this option is Rs.7,37,000.

Accordingly, there is cost saving of Rs.5,59,000 from WCMS implementation.

Relevant Non-Financial Considerations

The WCMS may be a lot more efficient, but more rigid. For instance, what if, a student forgets to bring his/ her card or transaction failure due to connectivity issue, and may not have enough cash to pay. Automated systems may be less able to handle these situations. Having clerks may add an aspect of flexibility and a human aspect that is hard to quantify.

Conclusion

Obviously, WCMS option is more cost effective for 'N' because there is a cost saving of Rs.5,59,000. But, non- financial factors should also be taken into consideration.

OR

Statement Showing Performance

	July	Aug	Sep
Advertisement cost as a percentage of donation	2.5%	4%	3%
Target percentage of Advertisement cost of donation	3%	3%	3%
Welfare cost as a percentage of donation	82%	84%	89%

Target percentage of welfare cost as a percentage of donation	85%	85%	85%
Respite care provided	80%	87.98%	92%
Target percentage of respite care	90%	90%	90%

(b) (i) Transfer Price: 200% of Full Cost Basis

= 200% of (¥ 2,500 + ¥ 5,000)

= ¥ 15,000 or £300 (¥ 15,000/ 50)

Transfer Price: Market Price Basis

= ¥ 9,000 or £180 (¥ 9,000/ 50)

(ii) Statement Showing "Operating Income"

Particulars	**Japan Mining Division**		**UK Processing Division**	
	Transfer Price		**Transfer Price**	
	¥15,000	**¥9,000**	**£300**	**£180**
Selling Price (Polished Stone)	---	---	£3,000	£3,000
Transfer Price (Raw Emerald)	¥ 15,000	¥ 9,000	**---**	**---**
Raw Emerald	---	---	£600 (£300 × 2)	£360 (£180 × 2)
Variable Cost	¥ 2,500	¥ 2,500	£150	£150
Fixed Cost	¥ 5,000	¥ 5,000	£350	£350
Profit Before Tax	¥ 7,500	¥ 1,500	£1,900	£2,140
Less: Tax 20%/ 30%	¥ 1,500	¥ 300	£570	£642
Profit After Tax per Carat of Raw	¥ 6,000	¥ 1,200	£1,330	£1,498

Emerald				
Raw Emerald	1,000 Carats	1,000 Carats	500 Carats	500 Carats
Total Profit	¥ 60,00,000	¥ 12,00,000	£6,65,000	£7,49,000
	Or	***Or***		
Total Profit (£)	£1,20,000	£24,000	£6,65,000	£7,49,000

5. (a) (i) Analysis of the proposal to make changes to the inspection process:

The company wants to reduce the cost of poor quality on account of rejected items from the process. The current rejection rate is 5% that is proposed to be improved to 3% of units input.

The expected benefit to the company can be worked out as follows:

The units of input each day = 5,000. At the current rate of 5%, 250 units of input are rejected each day. It is proposed to reduce rejection rate to 3%, that is 150 units of input rejected each day. Therefore, improvements to the inspection process would reduce the number of units rejected by 100 units each day. The resultant cost of poor quality would reduce by Rs.20,000 each day (100 units of input × Rs.200 cost of one rejected unit).

The cost of implementing these additional controls to the inspection process would be Rs.15,000 each day.

The net benefit to the company on implementing the proposal would be Rs.5,000 each day. Therefore, the company should implement the proposal.

(ii) Analysis of maximum rejection rate beyond which the proposal ceases to be beneficial

The cost of improving controls to the inspection process is Rs.15,000 each day. The number of units of input processed each day is 5,000. The cost of rejection is Rs.200 per unit.

It makes sense to implement the improvements to controls only if the benefit is greater than the cost involved. To find out the point where the benefits equal the cost, solve the following equation

Let the number of reduction in rejections each day due to improved controls be R.

At Rs.200 per unit, benefits from reduction in rejection would be Rs.200 × R.

At what point, would this be equal to the cost of control of Rs.15,000 per day?

Solving Rs.200 × R = Rs.15,000; R = 75 units. That is if the improvements to inspection process control reduces the number of rejections by 75 units each day, the benefit to the company would be Rs.15,000 each day.

That is if the rejection rate improves by 1.5% (75 units / 5,000 units) then the benefits accruing to the company will equal the cost incurred.

In other words, when the rejection rate is 3.5% (current rate 5% - improvement of 1.5% to the rate) or below, the proposal will be beneficial. In this range, the savings to the cost of poor quality will be more than the cost involved. For example, as explained above, when the improved rejection rate is 3%, the net benefit to the company is Rs.5,000 each day.

Beyond 3.5% rejection rate, the proposal will result in savings to the cost of poor quality that is less than the cost involved of Rs.15,000 each day.

(b) (i) In participative budgeting, subordinate managers create their own budget and these budgets are reviewed by senior management. Such budget communicates a sense of responsibility to subordinate managers and fosters creativity. This is also called bottom up approach (sometime referred as participative approach).

As the subordinate manager creates the budget, it might be possible that the budget's goals become the manager's personal goal, resulting in greater goal congruence. In addition to the behavioural benefits, participative budgeting also has the advantage of involving individuals whose knowledge of local conditions may enhance the entire planning process.

The participative budget described here appears participative in name only. In virtually every instance, the participative input is subject to oversight and discussion by sales manager. Some amount of revision is also common. However, excessive and arbitrary review that substitutes a top-down target for

a bottom-up estimate makes a deceit process. Such a gutting appears to be the case in EWPL. J's statement indicates a very autocratic style. The revision process also seems to be arbitrary and capricious. There is little incentive for the salesgirls to spend much time and effort in projecting the true expected sales because they know that the target would be revised again and J's estimate will prevail. This situation creates an interesting discussion about the costs and benefits of participative budgeting and gives rise to game playing and slack.

(ii) In top down approach, budget figures will be imposed on sales personnel by senior management and sales personnel will have a very little participation in the budget process. Such budget will not interest them since it ignores their involvement altogether. While in bottom up approach, each sales person will prepare their own budget. These budgets will be combined and reviewed by seniors with adjustment being made to coordinate the needs and goals of overall company. Proponents of this approach is that salespersons have the best information of customer's requirements, therefore they are in the best position in setting the sales goal of the company. More importantly, salespersons who have role in setting these goals are more motivated to achieve these goals. However, this approach is time-intensive and very costly when compared with top down approach. In order to achieve personal goals, participants may also engage in politics that create budgetary slack and other problems in the budget system.

Since both top down and bottom up approaches are legitimate approaches, so EWPL can use combination of both. Seniors know the strategic direction of the company and the important external factors that affect it, so they might prepare a set of planning guidelines for the salesgirls. These guidelines may include forecast of key economic variables and their potential impact on the EWPL, plans for introducing and advertising a new product and some broad sales targets etc. With these guidelines, salesgirls might prepare their individual budget. These budgets need to be reviewed to validate the uniformity with the EWPL's objectives. After review, if changes are to be made, the same should be discussed with salesgirls involved.

6. (a) (i) AB Chemicals has the opportunity to utilize 10 units of non-moving chemical as input to produce 10 units of a product demanded by one of its customers. The minimum unit price to be charged to the customer would be–

Cost Component	Cost per unit of product (Rs.)
Cost of Material (Realizable value = Rs.3,500 / 10 units of chemical)	350
Out of Pocket Expenses	50
Other Material Cost	80
Minimum Unit Price that can be charged	480

Therefore, the minimum unit price that can be charged to the customer, without incurring any loss is Rs.480 per unit of product. As explained below in point (ii), allocated overhead expenses and labor cost are sunk costs that have been ignored while calculating the minimum unit price to be charged.

(ii) Analysis

(a) Cost of Material: Relevant and hence included at realizable value. AB Chemicals has 10 units of non-moving chemical input that has a book value of Rs.2,400, realizable value of Rs.3,500 and replacement cost of Rs.4,200. Realizable value of Rs.3,500 would be the salvage value of the chemical had it been sold by AB Chemicals instead of using it to meet the current order. This represents an opportunity cost for the firm and hence included while pricing the product. Book value would represent the cost at which the inventory has been recorded in the books, a sunk cost that has been ignored. Replacement cost of Rs.4,200 would be the current market price to procure 10 units of the input chemical. This would be relevant only when the inventory has to be replenished after use. This chemical is from the non-moving category, that means that it is not used regularly in production process and hence

need not be replenished after use. Therefore, replacement cost is also ignored for pricing.

(b) Labour Cost: Not relevant and hence excluded from pricing. It is given in the problem that this order would be met by permanent employees of the firm. Permanent employee cost is a fixed cost that AB Chemicals would incur irrespective of whether this order is produced or not. No additional labour is being employed to meet this order. Therefore, this cost is a sunk cost, excluded from pricing.

(c) Allocated Overhead Expenses: These expenses have been incurred at another Cost Centre, typical example would be office and administration costs. Such costs are fixed in nature that would be incurred irrespective of whether this order is produced or not. Therefore, this cost is a sunk cost, excluded from pricing.

(d) Out of Pocket Expenses: These are expenses that are incurred to meet the production requirement of this order. These are additional variable expenses, that need to be included in pricing.

(e) Other Material Costs: These are expenses that are incurred to meet the production requirement of this order. These are additional variable expenses, that need to be included in pricing.

(iii) Advice on Pricing Policy

Under perfect competition conditions, AB Chemicals can have no pricing policy of its own, here sellers are price takers. It cannot increase its price beyond the current market price. The firm can only decide on the quantity to sell and continue to produce as long as the marginal cost is recovered. When marginal cost exceeds the selling price, the firm starts incurring a loss.

Since AB Chemicals cannot control the selling price individually in the market, it can adopt the *going rate pricing* method. Here it can keep its selling price at the average level charged by the industry. This would yield a fair return to the firm. An average selling price would help the firm attract a *fair market share* in competitive conditions.

(b) Comment

As the management accountant states, and the analysis (W.N.1) presents, the overall variance for the KONI is nil. The cumulative adverse variances exactly offset the favourable variances i.e. sales price variance and circuit designer's efficiency variance. However, this traditional analysis does not clearly show the efficiency with which the KONI operated during the quarter, as it is difficult to say whether some of the variances arose from the use of incorrect standards, or whether they were due to efficient or inefficient application of those standards.

In order to determine this, a revised ex post plan should be required, setting out the standards that, with hindsight, should have been in operation during the quarter. These revised ex post standards are presented in W.N.2.

As seen from W.N.3, *on the cost side*, the circuit designer's rate variance has changed from adverse to favourable, and the price variance for circuit X, while remaining adverse, is significantly reduced in comparison to that calculated under the traditional analysis (W.N.1); *on the sales side*, sales price variance, which was particularly large and favourable in the traditional analysis (W.N.1), is changed into an adverse variance in the revised approach, reflecting the fact that the KONI failed to sell at prices that were actually available in the market.

Further, variances arose from changes in factors external to the business (W.N .4), which might not have been known or acknowledged by standard-setters at the time of planning are beyond the control of the operational managers. The distinction between variances is necessary to gain a realistic measure of operational efficiency.

W.N.1

KONY India Ltd.

Quarter-1

Operating Statement

Particulars	Favourable RM	Adverse RM	RM
Budgeted Contribution			26,000
Sales Price Variance [(RM 79 - RM 50) × 2,000 units]	58,000	---	NIL
Circuit X Price Variance [(RM 2.50 – RM 4.50) × 21,600 units]		43,200	
Circuit X Usage Variance [(20,000 units - 21,600 units) × RM 2.50]		4,000	
Circuit Designer's Rate Variance [(RM 2 - RM 3) × 11,600 hrs.]		11,600	
Circuit Designer's Efficiency Variance [(12,000 hrs. - 11,600 hrs.) × RM 2.00]	800		
Actual Contribution			26,000

W.N.2

Statement Showing Original Standards, Revised Standards, and Actual Results for Quarter 1

	Original Standards (ex-ante)		Revised Standards (ex-post)		Actual	
Sales	2,000 units × RM 50.00	RM 1,00,000	2,000 units × RM 82.50	RM 1,65,000	2,000 units × RM 79.00	RM 1,58,000
Circuit X	20,000 units × RM 2.50	RM 50,000	20,000 units × RM 4.25	RM 85,000	21,600 units × RM 4.50	RM 97,200
Circuit Designer	12,000 hrs. × RM 2.00	RM 24,000	12,000 hrs. × RM 3.125	RM 37,500	11,600 hrs. × RM 3.00	RM 34,800

W.N.3

Statement Showing Operational Variances

Particulars	(Rs.)	(Rs.)
Operational Variances		16,500 (A)
Sales Price [(RM 79.00 - RM 82.50) × 2,000 units]	7,000 (A)	
Circuit X Price [(RM 4.25 - RM 4.50) × 21,600 units]	5,400 (A)	
Circuit X Usage [(20,000 units – 21,600 units) × RM 4.25]	6,800 (A)	
Circuit Designer Rate [(RM 3.125 - RM 3.00) × 11,600 hrs.]	1,450 (F)	
Circuit Designer Efficiency [(12,000 hrs.– 11,600 hrs.) × RM 3.125]	1,250 (F)	

W.N.4

Statement Showing Planning Variances

Particulars	(Rs.)	(Rs.)
Planning Variance		16,500 (F)
Sales Price [(RM 82.50 - RM 50.00) × 2,000 units]	65,000 (F)	
Circuit X Price [(RM 2.50 - RM 4.25) × 20,000 units]	35,000 (A)	
Circuit Designer Rate [(RM 2.00 - RM 3.125) × 12,000 hrs.]	13,500 (A)	