Operations Management

Lesson 6

2.3 Evaluate the significance of the five performance objectives that underpin operations management to organisations

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Learning Objectives

- To understand the link between operations management and strategic planning as it relates to the five performance objectives that underpin operations management to organisations
    1. cost,
    2. dependability,
    3. flexibility,
    4. quality and
    5. speed

Operations Performance Objectives

- In order to ensure that resources are allocated appropriately in operations it is necessary to record, monitor and review aspects of operations performance.

- A key task in this process is the identification of appropriate measures of performance that relate to the internal and external factors that are relevant to organisational competitiveness.

- Slack et al. (2007) describe five basic operations performance objectives which allow the organisation to measure its operations performance. The performance objectives are quality, speed, dependability, flexibility and cost.

Significance of the Performance Objectives that underpin OM to Organisations

- It involves the responsibility of ensuring that business operations are:

  1. Efficient in terms of using as few resources as needed, and
  2. Effective in terms of meeting customer requirements.

- It is concerned with managing the process that converts inputs (in the forms of materials, labor, and energy) into outputs (in the form of goods and/or services).

Significance of the Performance Objectives that underpin OM to Organisations

From a customer perspective quality characteristics include:

1. reliability,
2. performance and
3. aesthetics.

From an operations viewpoint quality is related to how closely the product or service meets the specification required by the design, termed the ‘quality of conformance’.

Five (5) Performance Objectives

- The big 5 of operations performance objectives add value for customers and contribute to competiveness by being able to satisfy the requirements of its customers
    1. Cost – being productive
    2. Quality – being right
    3. Speed – being fast
    4. Dependability – being on time
    5. Flexibility – being able to change

Costs (being productive)

- Costs is significance to organisational competitiveness.

- Cost advantages: Finding appropriate costs to produce goods and services whilst still receiving returns or investment.

  - ✓ Reducing the costs of resource inputs OR making better use of them, by cutting out waste for example, allows for the increase in productivity.

Cost of Producing Products

- The cost of producing products and services is influenced by the 4 V's:
  1. Volume
  2. Variety
  3. Variation
  4. Visibility
- If managed properly, high quality, high speed, high dependability and high flexibility can not only bring their own external rewards, they can also save the operation cost.

Quality (being right)

- The Quality of a product can be measured in terms of performance, reliability and durability.
- Consumers may focus on the specification quality of a product or service, comparing it against competitors.
- Producers might measure the conformance quality of the product.

Dependability (being on time)

- Doing things in time for customers to receive their goods or services when they are needed or promised.

- Inside the operation internal customers will judge each other's performance by how reliable other processes are in delivering resources on time.
  - Dependability saves time
  - Dependability saves money
  - Dependability gives stability

Flexibility (being able to change)

"Being able to change the operation in some way"

- Product/service flexibility
- Mix flexibility
- Volume flexibility
- Delivery flexibility

  - Flexibility speeds up response - saves time

  - Flexibility helps maintain dependability
- Different things for different customers
- One form of flexibility involves the production of high variety products in mass manners to help minimize costs

  - This approach is called mass customization

Speed (being fast)

- Speed refers to the time between the beginning of an operations process and its end.
  - Externally: It is the time between customers requesting and receiving products/services.
  - Internally: It is the time between when materials being and finish product.

- Relative success of speed brings other benefits.
  - Dependability is much easier maintained
  - Reduction of costs due to the decreased necessity to manage transformed resources through the operational process.

Internal and External Cost of 5 Performance Objective

- These factors can be depicted in a SWOT matrix which lists the current strengths (S) and weaknesses (W) internal to the company, and the opportunities (O) and threats (T) external to the company

Internal Failure Costs

- Internal failure costs include:
  1. **Scrap costs:** Costs of poor-quality products that must be discarded, including labor, materials, and indirect costs.
  2. **Rework costs:** Costs of fixing defective products to conform to quality specifications.
  3. **Process failure Costs**: Cost of determining why the production process is producing poor-quality products.
  4. **Process downtime Costs**: Costs of shutting down the productive process to fix the problem.
  5. **Price-downgrading Costs:** Costs of discounting poor-quality products – that is, selling products as “seconds.”

External Failure Costs

- External failure costs are incurred after the customer has received a poor-quality product. Examples of external failure costs include:
  1. **Customer Complaint Costs**: Costs of investigating and satisfactorily responding to a customer complaint resulting from a poor-quality product.
  2. **Product Return Costs:** Costs of handling and replacing poor-quality products returned by the customer.
  3. **Warranty Claims Costs**: Costs of complying with product warranties.
  4. **Product Liability Costs**: The litigation costs resulting from product liability and customer injury.
  5. **Lost Sales Costs**: Costs incurred because customers are dissatisfied with poor-quality products and do not make additional purchases.

Cost of Internal & External Failure

- Internal failure costs tend to be low for a service, while external failure costs can be quite high.
- Service organization has little opportunity to examine and correct a defective internal process, usually an employee-customer interaction, before it actually happens. At that point it becomes an external failure.
  a) a customer waiting to place a catalog phone order;
  b) a catalog order that arrives with the wrong item, requiring the customer to repackage and send it back;
  c) error in a billing statement, requiring the customer to make phone calls or write letters to correct it;
  d) not sending a customer's orders or statements to the correct address;
  e) an overnight mail package that does not arrive overnight.

Benefits of Excelling in 5 Performance Objective

- **Quality** - providing error free goods and services will satisfy the customers, this is known as 'quality'.
- **Speed** - doing things fast, to minimise the time between the order and the availability of the product or service that gives the customer speed advantage.
- **Dependability** - doing things in time for customers to receive their gods or services when they are promised.
- **Flexibility** - responding to a dynamic environment is that organisation change their products and services and changes the way they do business.
- **Cost** – producing good and services at less cost that competitors. This is especially where companies compete with prices is 'cost'.

Benefits of Excelling in 5 Performance Objective

- Quality reduces costs and increases dependability. Also high quality can influences customer satisfaction and leads to stable and efficient processes.

- Speed supports Flexibility - time between customers requesting products or services and then receive them. Speed also reduces inventories and helps to overcome internal problems by forcing attention to internal dependability.

- Dependability reduce cost - ineffective use of time will translate into extra cost - deliver exactly as planned.

- Flexibility supports cost and maintains dependability. Flexibility adapts to changing circumstances quickly and without disrupting the rest of the operation. It helps to keep the operation on schedule when unexpected events disrupt the operation's plans.

- Cost is affected by the other performance objectives. If managed properly, they can also save the operation cost.

Trade-offs between Objectives and the Basis for Competing

- After assessing the potential within an industry, an overall organizational strategy must be developed, including some basic choices of the primary basis for competing. In doing so, priorities are established among the following four characteristics:
  1. Quality (product performance).
  2. Cost efficiency (low product price).
  3. Dependability (reliable, timely delivery of orders to customers).
  4. Flexibility (responding rapidly with new products or changes in volume).

Trade-offs between objectives

Performance Objective (cost, dependability, Flexibility, quality and speed)

Two views on trade-offs.

1. Improving the performance of one objective can potentially enhance others.
2. ‘Repositioning’ performance by trading off improvements in some for a reduction in performance in others.

References

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