# Unit 34: Operations Management

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# Learning Outcome 2

- LO2 Understand the link between operations organisations management and strategic planning
  - AC 2.1 Appraise the importance of the ‘Three Es’ to organisations
  - AC 2.2 Assess the impact of the tension between cost minimisation and quality maximisation in organisations
  - AC 2.3 Evaluate the significance of the five performance objectives that underpin operations management to organisations

# In this Session

- LO2 Understand the link between operations organisations management and strategic planning
  - AC 2.2 Assess the impact of the tension between cost minimisation and quality maximisation in organisations
    - Efficiency (thrift) versus effectiveness (quality)
    - Cost minimisation in organizations
    - Quality maximisation in organisations
- Further readings
- References

# Introduction

- *In today's competitive world, it is fundamental to drive a company around the concepts of Economy, Efficiency and Effectiveness. The right balance in implementing those 3E's, allows any organization to be more flexible and to respond in faster pace to current and future challenges. Many companies loses their sight by focusing only on profitability and short term gains, while under turbulent times such measures lead to higher risks. A business should prefer to focus on long term strategies if they want to improve their overall performance and remain in the market. A good way to steer in such direction is by looking to create and deliver value at any level of their activities. Value itself drives profits, and such profits are funded in sound basis when the 3E's are developed under the right balance* (Valuemex.com, 2012).

# Efficiency (thrift) vs. Effectiveness (Quality)

- Operations management includes the responsibility of ensuring that all business/organizational operations are:

    1. Efficient in terms of minimising costs by using as few resources as possible, and

    2. Effective in terms of maximising quality and meeting customer requirements.

# Cost Minimisation vs. Quality Maximisation

- Cost minimization and quality maximization in organizations means that:
    - The operation will have to produce the optimum quality products at minimum cost
    - Any attempts to further improve quality above optimum level will increase total cost
    - While product defects may decrease, prevention cost may increase.

# Cost Minimisation

- Cost minimization implies an emphasis on:
  - a) efficiency,
  - b) high labour productivity, and
  - c) standardization
-  Cost minimization or cost leadership is one of Michael Porter's three generic strategies for achieving competitive advantage.

# *Cost Minimisation Strategy*

- Strategies includes:
  - Increase asset turnover (which allows fixed costs to be spread over more units of production).
  - Reduce direct costs (for example, by limiting differentiation and customization of projects and increase output of a product).
  - Outsource non-core activities, such as payroll, call handling, and transaction processing;

# *Cost Minimisation Strategy cont*

- Aggressively control of overheads (such as banning first class travel on airlines); and

- Use company's bargaining power to negotiate better pricing with suppliers

# Cost Minimisation Problem

- Cost minimized where $\frac{MP\ L}{w} = \frac{MP\ k}{r}$
- Cost is minimized at the levels of capital and labor such that the marginal product of labor divided by the wage (w) is equal to the marginal product of capital divided by the rental price of capital (r).
- Cost being minimized (and, by extension, production being most efficient) when the additional output per dollar spent on each of the inputs is the same (or, in less formal terms, you get the same "bang for your buck" from each input).

# Benefits to cost Minimization

- Benefits to cost minimization:
    1. Lower unit costs
    2. Higher profit margin
    3. Higher operating profits
    4. Improved cash flow
    5. Higher return on equity

# Downside of cost Minimization

- It can leave companies with insufficient capacity to handle unexpected increases in demand.

- Cost reductions by one department may also surprise other departments if they are not properly communicated.

# Quality Maximization

- Quality maximization is important for an organization to make their profit.

- Fedrick W. Taylor, the "Father of Scientific Management," gave new emphasis to quality by including product inspection in his list of fundamental areas of manufacturing management.
- The tension between cost minimization and quality maximization in organizations is that the operation will have to produce the optimum quality products at minimum cost
- Focus on maintaining or improving the quality of an organization's product or services to attract and retain customers.
- Higher quality of organisation's products or services may be linked to cost reduction overtime, increased productivity, and time reduction in - planning, processing, delivery and response to complaints.

# Cost Quality

- Cost associate with the management of quality includes:
    1. Appraisal Costs: Cost of activities designed to ensure quality or uncover defects
    2. Prevention Costs: Costs of preventing defects from occurring  Failure Costs: Costs caused by defective
    3. parts or products or by faulty services
    4. Internal Failures: Failures discovered during production.
    5. External Failures: Failures discovered after delivery to the customers.
    6. Return on Quality (ROQ): An approach that evaluates the financial return of investments in quality.

# Objectives of Quality Control

- Objectives of quality control includes:
    1. To improve the companies income by making the production more acceptable to the customers i.e. by providing long life, greater usefulness, maintainability, etc.
    2. To reduce companies cost through reduction of losses due to defects.
    3. To achieve interchangeability of manufacture in large-scale production. To produce optimal quality at reduced Price.
    4. To ensure satisfaction of customers with productions or services or high quality level
    5. To build customer good will, confidence and reputation of manufacturer.
    6. To make inspection prompt to ensure quality control.
    7. To check the variation during manufacturing

# Cost to Remedy a Problem

- Is a major consideration in quality management.
- The earlier a problem is identified in the process, the cheaper the cost to fix it.
- The cost to fix a problem at the customer end is about five times the cost to fix a problem at the design or production stages.

# Further Reading

- https://brainmass.com/business/cost-minimization-strategies
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# References


- Bennett, Claudette (2015) Operations Management Lecture Notes, Colbourne College
- Butler, J. E. & Jones, G. R. (1998). Costs, revenue and business-level strategy. Academy of Management Review, 13 (2), 202-213.
- William J. Stevenson, Operations Management, McGraw-Hill Publishing Company Limited, 8th Edition, 2008.
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