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COMPETING WITH OPERATIONS

Bus Adm 475

Operations Planning and Control

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Operations Management

- Operations Management: systematic design, control processes - transform inputs into products and services for internal and external customers.

- Process: activity, input, output

- Operation: resources performing processes
Supply Chain Management

Supply Chain:
- interrelated processes - produce service or product to the satisfaction of customers

Supply Chain Management
- Synchronization of the firm’s processes with those of its suppliers and customers to match the flow of information and services with customer demand
Role of Operations

Finance
- Acquires financial resources and capital for inputs

Material & Service Inputs

Sales Revenue

Support Functions
- Accounting
- Information Systems
- Human Resources
- Engineering

Operations
- Translates materials and service into outputs

Product & Service Outputs

Marketing
- Generates sales of outputs
A Process View

External environment

Internal and external customers

Inputs
- Workers
- Managers
- Equipment
- Facilities
- Materials
- Land
- Energy

Processes and operations

Outputs
- Goods
- Services

Information on performance
Service and Manufacturing Processes

Differ Across Nature of Output and Degree of Customer Contact

More like a manufacturing process

- Physical, durable output
- Output can be inventoried
- Low customer contact
- Long response time
- Capital intensive
- Quality easily measured

More like a service process

- Intangible, perishable output
- Output cannot be inventoried
- High customer contact
- Short response time
- Labor intensive
- Quality not easily measured
The Supply Chain View

Support Processes

- New service/product development
- Order fulfillment process
- Customer relationship management

External suppliers

- Supplier relationship process

External customers
The Supply Chain View

Core processes are sets of activities that deliver value to external customers

1. Supplier relationship process
2. New service/product development process
3. Order fulfillment process
4. Customer relationship process

Support processes provide vital resources and inputs to the core processes—Accounting, Finance, HR, MIS
● SRP: Selects the suppliers of services, materials, information and facilitates the timely and efficient flow of these items into the firm.

● NPD: Designs and develops new products or services based on the inputs from customers.

● Order fulfilment process: Activities to produce and deliver service or product to external customers.

● CRP: Identifies, attracts external customers and build relationship with them, facilitates placement of orders by customers.
Corporate Strategy

- Corporate strategy provides an overall direction that serves as the framework for carrying out all the organization's functions.
Operations Strategy

- Operations Strategy specifies the means by which operations implements corporate strategy and helps build a customer-driven firm.
**Competitive Priorities:** The critical dimension that a supply chain must possess to satisfy internal and external customers.

**Competitive Capabilities:** The cost, quality, time and flexibility dimensions that a supply chain actually possesses and is able to deliver.
Order Winners and Qualifiers

- **Order winner**: A criterion customers use to differentiate services of one firm from another.
  - Also, after-sales services, technical support and firm’s reputation

- **Order qualifier**: Minimum level from a set of criteria for a firm to do business in a particular market.
  - Does not ensure competitive success
Order Winners and Qualifiers

Order Winner

Sales ($)

Low  High

Achievement of competitive priority

Order Qualifier

Sales ($)

Low  Threshold  High

Achievement of competitive priority
Trends in Operations Management

- Global competition
- Ethical, workforce, and environmental issues
- Productivity improvement: labor and multifactor
EXAMPLE 1.
Calculate the productivity for the following operations:

a. Three employees process 600 insurance policies in a week. They work 8 hours per day, 5 days per week.

SOLUTION

a. Labor productivity = \( \frac{\text{Policies processed}}{\text{Employee hours}} \)

\[
= \frac{600 \text{ policies}}{(3 \text{ employees})(40 \text{ hours/employee})} = 5 \text{ policies/hour}
\]
EXAMPLE 1.

Calculate the productivity for the following operations:

b. A team of workers makes 400 units of a product, which is sold in the market for $10 each. The accounting department reports that for this job the actual costs are $400 for labor, $1,000 for materials, and $300 for overhead.

SOLUTION

a. Multifactor productivity = \[
\frac{\text{Value of output}}{\text{Labor cost} + \text{Materials cost} + \text{Overhead cost}}
\]

\[
= \frac{(400 \text{ units})($10/\text{unit})}{$400 + $1,000 + $300} = \frac{$4,000}{$1,700} = 2.35
\]