

Chapter 1 – Basics of Operations Management

Operations Management
by
R. Dan Reid & Nada R. Sanders
4th Edition © Wiley 2010

Learning Objectives

- Define and explain OM
- Explain the role of OM in business
- Describe the decisions that operations managers make
- Describe the differences between service and manufacturing operations
- Identify major historical developments in OM

MGT 236

2

Learning Objectives – con't

- Identify current trends in OM
- Describe the flow of information between OM and other business functions

MGT 236

3

Operations Management is:

The business function responsible for planning, coordinating, and controlling the resources needed to produce products and services for a company

MGT 236

4

Operations Management is:

- A management function
- An organization's core function
- In every organization whether Service or Manufacturing, profit or Not for profit

MGT 236

5

Typical Organization Chart



MGT 236

6

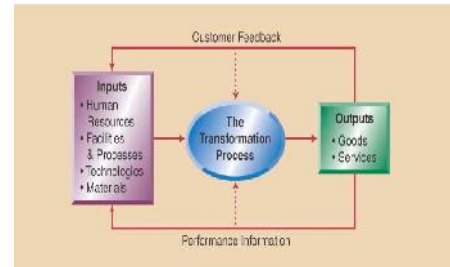
What is Role of OM?

- OM Transforms inputs to outputs
 - Inputs are resources such as
 - People, Material, and Money
 - Outputs are goods and services

MGT 236

7

OM's Transformation Process



MGT 236

8

OM's Transformation Role

- To add value
 - Increase product value at each stage
 - Value added is the net increase between output product value and input material value
- Provide an efficient transformation
 - Efficiency – means performing activities well for least possible cost

MGT 236

9

Manufacturers vs Service Organizations

- | | |
|---------------------------------|--------------------------|
| ■ Services: | ■ Manufacturers: |
| ■ Intangible product | ■ Tangible product |
| ■ Product cannot be inventoried | ■ Product is inventoried |
| ■ High customer contact | ■ Low customer contact |
| ■ Short response time | ■ Longer response time |
| ■ Labor intensive | ■ Capital intensive |

MGT 236

10

Similarities for Service/Manufacturers

- Both use technology
- Both have quality, productivity, & response issues
- Both must forecast demand
- Both can have capacity, layout, and location issues
- Both have customers, suppliers, scheduling and staffing issues

MGT 236

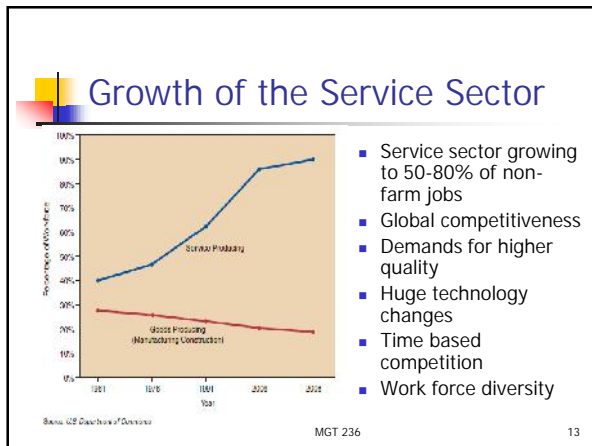
11

Service vs Manufacturing

- Manufacturing often provides services
- Services often provides tangible goods
- Some organizations are a blend of service/manufacturing/quasi-manufacturing Quasi-Manufacturing (QM) organizations
- QM characteristics include
 - Low customer contact & Capital Intensive

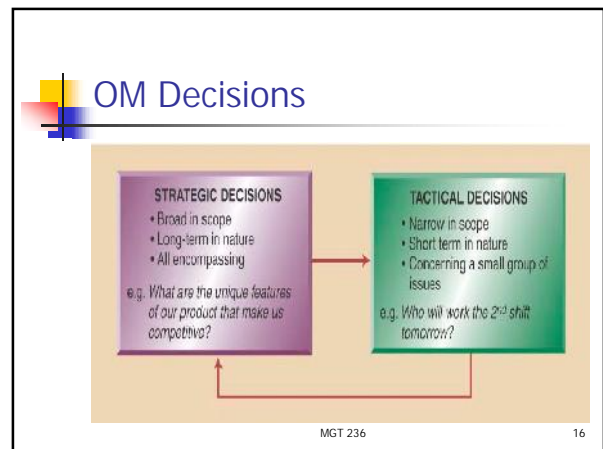
MGT 236

12



- ## OM Decisions
- All organizations make decisions and follow a similar path
 - First decisions very broad – Strategic decisions
 - Strategic Decisions – set the direction for the entire company; they are broad in scope and long-term in nature
- MGT 236 14

- ## OM Decisions
- Following decisions focus on specifics - Tactical decision
 - Tactical decisions: focus on specific day-to-day issues like resource needs, schedules, & quantities to produce
 - are frequent
 - Strategic decisions less frequent
 - Tactical and Strategic decisions must align
- MGT 236 15



Plan of Book-Chapters link to Types of OM Decisions

Type of Decision	Operations Management Topic	Chapter
Strategic ↑ ↓ Tactical	Operations Strategy	Ch. 2
	Product Design and Process Selection	Ch. 3
	Supply Chain Management	Ch. 4
	Total Quality Management	Ch. 5 and 6
	Just-in-Time and Lean Systems	Ch. 7
	Forecasting	Ch. 8
	Capacity Planning and Location Analysis	Ch. 9
	Facility Layout	Ch. 10
	Work System Design	Ch. 11
	Inventory and Resource Planning	Ch. 12, 13, 14, and 15
	Scheduling Issues	Ch. 16 and 17

MGT 236 17

- ## Historical Development of OM
- | | |
|----------------------------|-------------|
| ■ Industrial revolution | Late 1700s |
| ■ Scientific management | Early 1900s |
| ■ Human relations movement | 1930s-60s |
| ■ Management science | 1940s-60s |
| ■ Computer age | 1960s |
| ■ Environmental Issues | 1970s |
| ■ JIT & TQM* | 1980s |
- *JIT= Just in Time, TQM= Total Quality Management
- MGT 236 18

Historical Development con't

- Reengineering 1990s
- Global competition 1980s
- Flexibility 1990s
- Time-Based Competition 1990s
- Supply chain Management 1990s
- Electronic Commerce 2000s
- Outsourcing & flattening of world 2000s

For long-run success, companies must place much importance on their operations

MGT 236

19

Today's OM Environment

- Customers demand better quality, greater speed, and lower costs
- Companies implementing lean system concepts – a total systems approach to efficient operations
- Recognized need to better manage information using ERP and CRM systems
- Increased cross-functional decision making

MGT 236

20

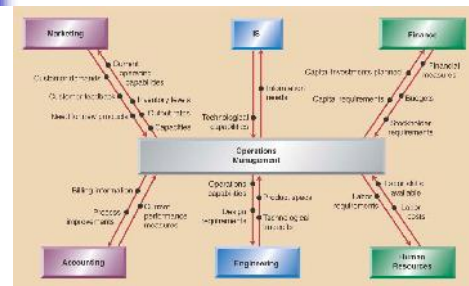
OM in Practice

- OM has the most diverse organizational function
- Manages the transformation process
- OM has many faces and names such as;
 - V. P. operations, Director of supply chains, Manufacturing manager
 - Plant manger, Quality specialists, etc.
- All business functions need information from OM in order to perform their tasks

MGT 236

21

Business Information Flow



MGT 236

22

OM Across the Organization

- Most businesses are supported by the functions of operations, marketing, and finance
- The major functional areas must interact to achieve the organization goals

MGT 236

23

OM Across the Organization – con't

- Marketing is not fully able to meet customer needs if they do not understand what operations can produce
- Finance cannot judge the need for capital investments if they do not understand operations concepts and needs
- Information systems enables the information flow throughout the organization
- Human resources must understand job requirements and worker skills
- Accounting needs to consider inventory management, capacity information, and labor standards

MGT 236

24



Chapter 1 Highlights

- OM is the business function that is responsible for managing and coordinating the resources needed to produce a company's products and services.
- The role of OM is to transform organizational inputs into company's products or services outputs
- OM is responsible for a wide range of decisions, ranging from strategic to tactical.
- Organizations can be divided into manufacturing and service organizations, which differ in the tangibility of the product or service

MGT 236

25



Chapter 1 Highlights – con't

- Many historical milestones have shaped OM. Some of these are the Industrial Revolution, scientific management, the human relations movement, management science, and the computer age
- OM is highly important function in today's dynamic business environment. Among the trends with significant impact are just-in-time, TQM, reengineering, flexibility, time-based competition, SCM, global marketplace, and environmental issues
- OM works closely with all other business functions

MGT 236

26