

Lecture #2

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Service Processes & Systems
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Businesses with Service Component

- ❖ Hospitality & Food Services
- ❖ Waste Management and Remediation Services
- ❖ Entertainment and Recreation
- ❖ Education
- ❖ Security
- ❖ Financial and Insurance Services
- ❖ Health Care and Social Assistance
- ❖ Information Technology
- ❖ Management of Companies & Enterprises
- ❖ Public Administration and Policy
- ❖ Professional, Scientific, and Technical Services
- ❖ Transportation & Logistics/Distribution
- ❖ Retail and Wholesale Trade
- ❖ Real Estate & Leasing
- ❖ Utilities

Disciplines that Support the Service Sector

❖ Industrial Engineering

- ❑ Grew out of mechanical engineering (F. W. Taylor)
- ❑ Application of scientific principles to task design, work methods, process efficiency, and production systems
- ❑ Historic tie to manufacturing
- ❑ Design and analysis of systems
- ❑ Synthesizes human, information, material, financial, and technological resources – relies on: economic analysis, human factors, OR, statistics, manufacturing systems, logistics, and material handling

❖ Engineering (or Operations) Management

- ❑ Blends engineering, systems, and management subjects
- ❑ Integration of human, financial, and technology elements to form productive and high quality complex systems
- ❑ “Management” - system already in place to manage (does not include the design of the system itself)

Why Service Systems Engineering is Different...

- ❖ **Emphasis on people and human behavior**
- ❖ **Focus on Engineering rather than Business, i.e., design, operation, & problem solving**
- ❖ **Emphasis on process over product**
- ❖ **Not tied to manufacturing/mechanical engineering legacy**
- ❖ **Focus on customer interaction with service processes and systems**

Characteristics of Goods & Services

❖ Goods

❖ Services

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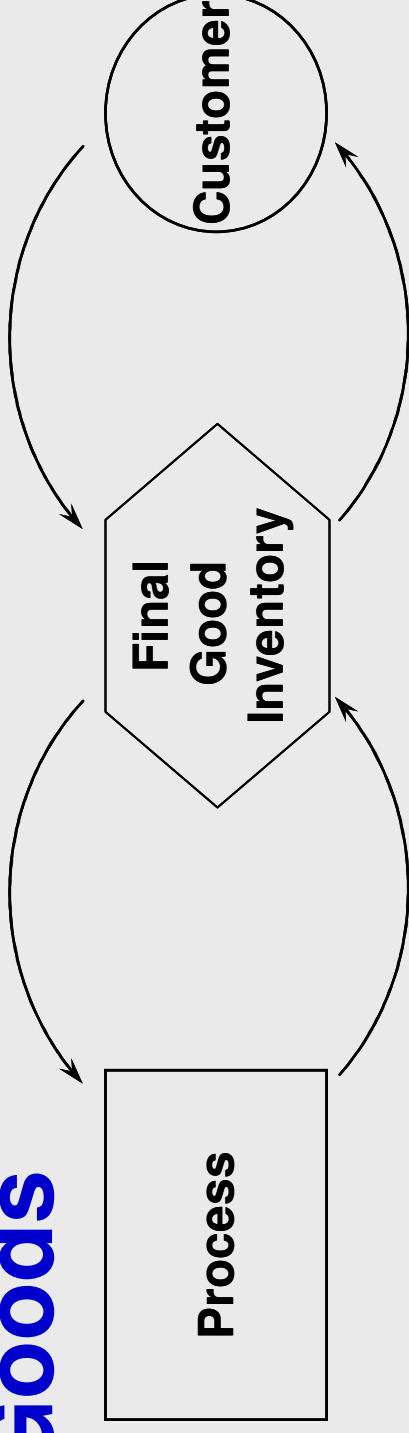
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Distinctive Characteristics of Services

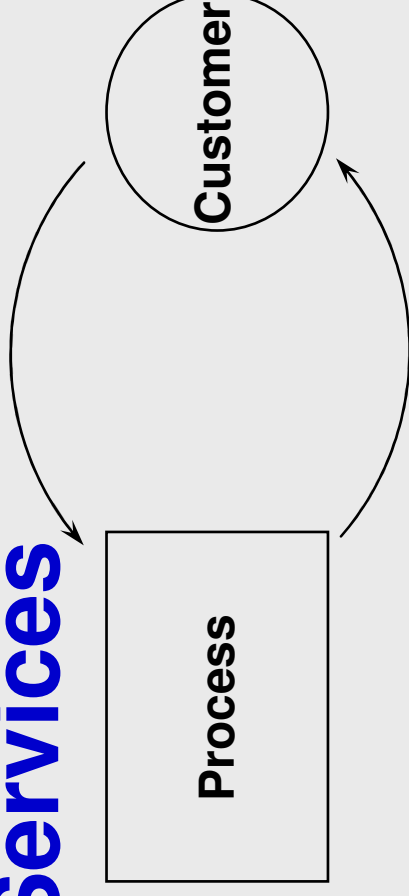
- ❖ Customer Participation in the Service Process: How does a customer get involved? Facility issues? Customer ‘ownership’ of the process.
- ❖ Simultaneity: Occurring or existing at the same time (e.g., opportunities for personal selling, interaction creates customer perceptions of quality).
- ❖ Perishability: Subject to decay, spoilage, or destruction (e.g., cannot inventory, opportunity loss of idle capacity, need to match supply & demand).
- ❖ Intangibility: assets that are saleable though not material or physical (e.g., creative advertising, no patent protection, importance of reputation).
- ❖ Heterogeneity: diverse quality and variability – customer engagement in delivery process.

Customer Interaction: Goods vs. Services

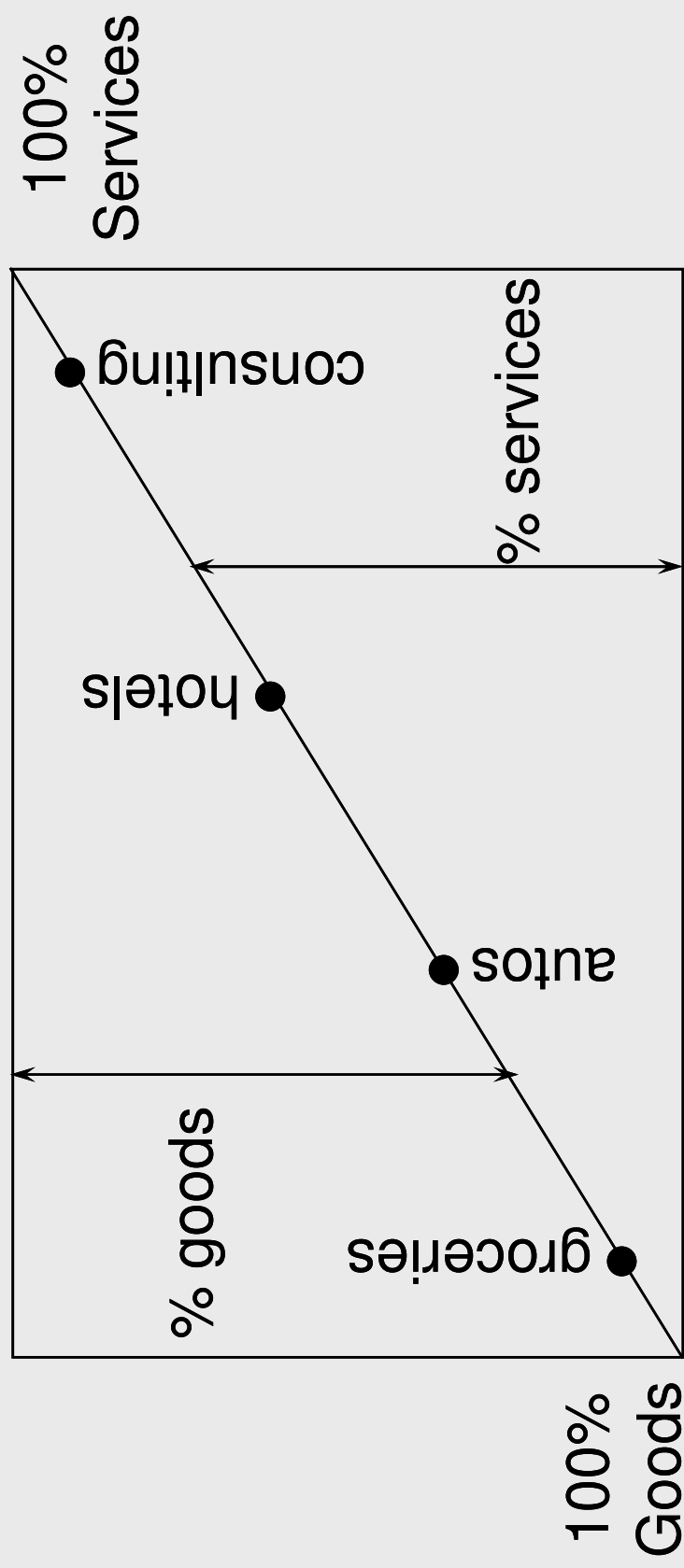
❖ Goods



❖ Services



Products: Bundles of Goods and Services



Service/Good Bundles

Element	Core Goods Example	Core Service Example
Business	Custom clothier	Business hotel
Core	Business suits	Room for the night
Peripheral Goods	Garment bag	Bath robe
Peripheral Service	Deferred payment plans	In house restaurant
Variant	Coffee lounge	Airport shuttle

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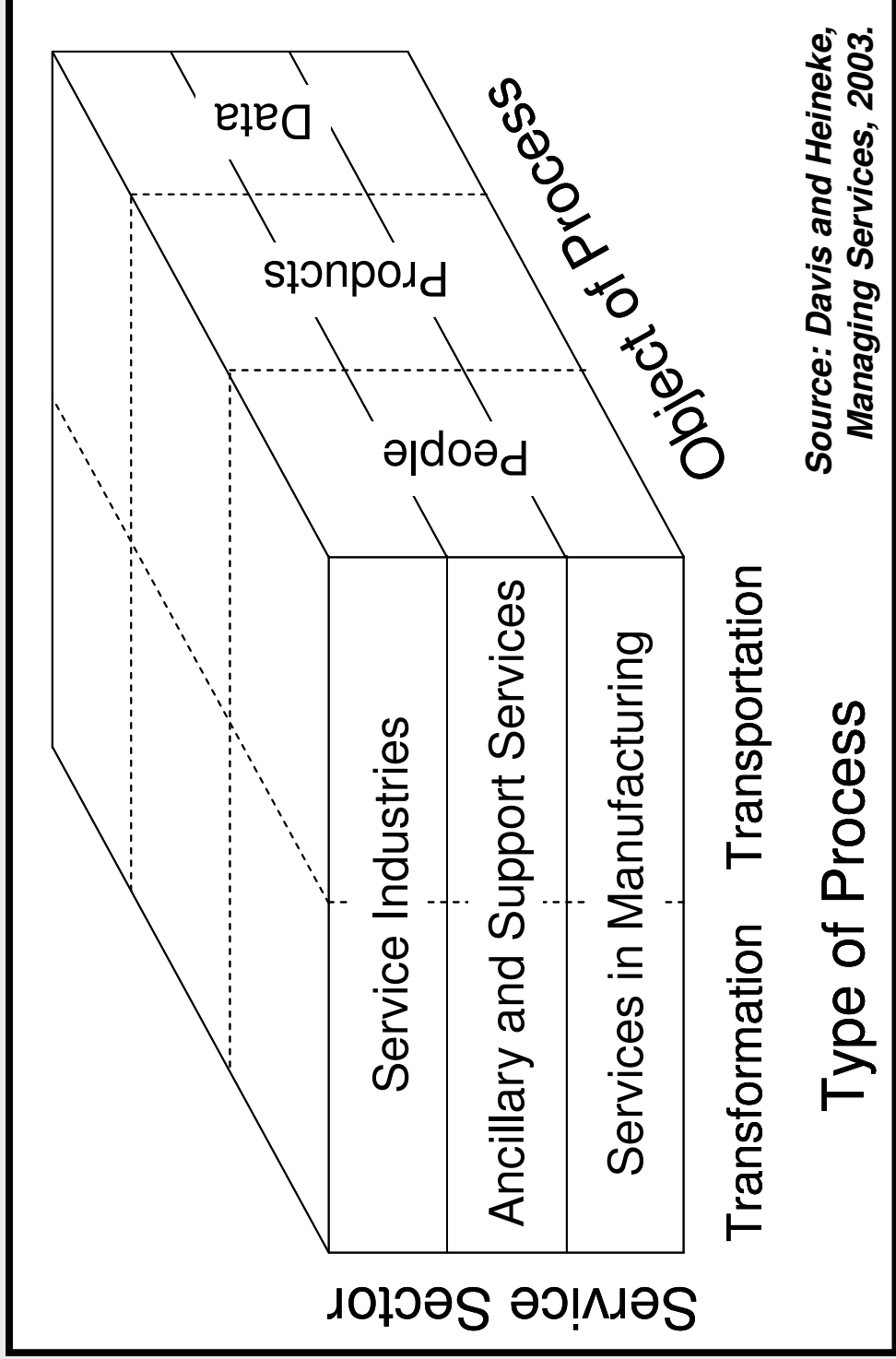
Explicit vs. Implicit Services

- ❖ **Explicit Services: Benefits readily observable by the senses; essential or intrinsic features**
- ❖ **Implicit Services: Psychological benefits or extrinsic features which the consumer is not seeking directly and may sense only vaguely.**
- ❖ **Ends of the spectrum**

Implicit/Explicit Examples

- ❖ **Explicit Services: Examples are quality of meal, attitude of the waiter, on-time departure. Other?**
- ❖ **Implicit Services: Examples are privacy of loan office, quietness of a classroom, confidence imparted by a manager. Other?**

Categorizing Service



Examples: Service Industries

People:

Transform

**Restaurant
Hospital**

Transport

**Airline
Bus**

Goods:

**Carwash
Dry Cleaning**

Freight line

Data:

**Payroll
Data analysis**

**E-mail
Interchange**

Examples: Service Sector Organizations

❖ Service Industries

- ❑ Health Care, Hospitality, Financial Services, Retail, Transportation, etc.

❖ Ancillary and Support Services

- ❑ Temporary Help, Janitorial Services, Security, Food Service

❖ Services in Manufacturing

- ❑ Support service by Gateway Computers, GPS by Lincoln automobiles

Service Process Components

- ❖ **Supporting facilities/infrastructure**
 - physical resources necessary to perform service
- ❖ **Peripheral/facilitating goods**
 - physical resources consumed by service provider or customer
- ❖ **Information/expertise**
 - data provided by customer, prior experience, education, etc., which adds value to service

The Service Package

❖ Supporting Facility:

- ❑ Examples are golf course, ski lift, hospital, airplane.

❖ Facilitating Goods:

- ❑ Examples are food items, legal documents, golf clubs, medical history.

❖ Information:

- ❑ Examples are patient medical records, seats available on a flight, customer preferences, location of customer to dispatch a taxi.