

Operations Management

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Operations: Service vs. Manufacturing

Production – Services vs. Manufacturing



Manufacturing

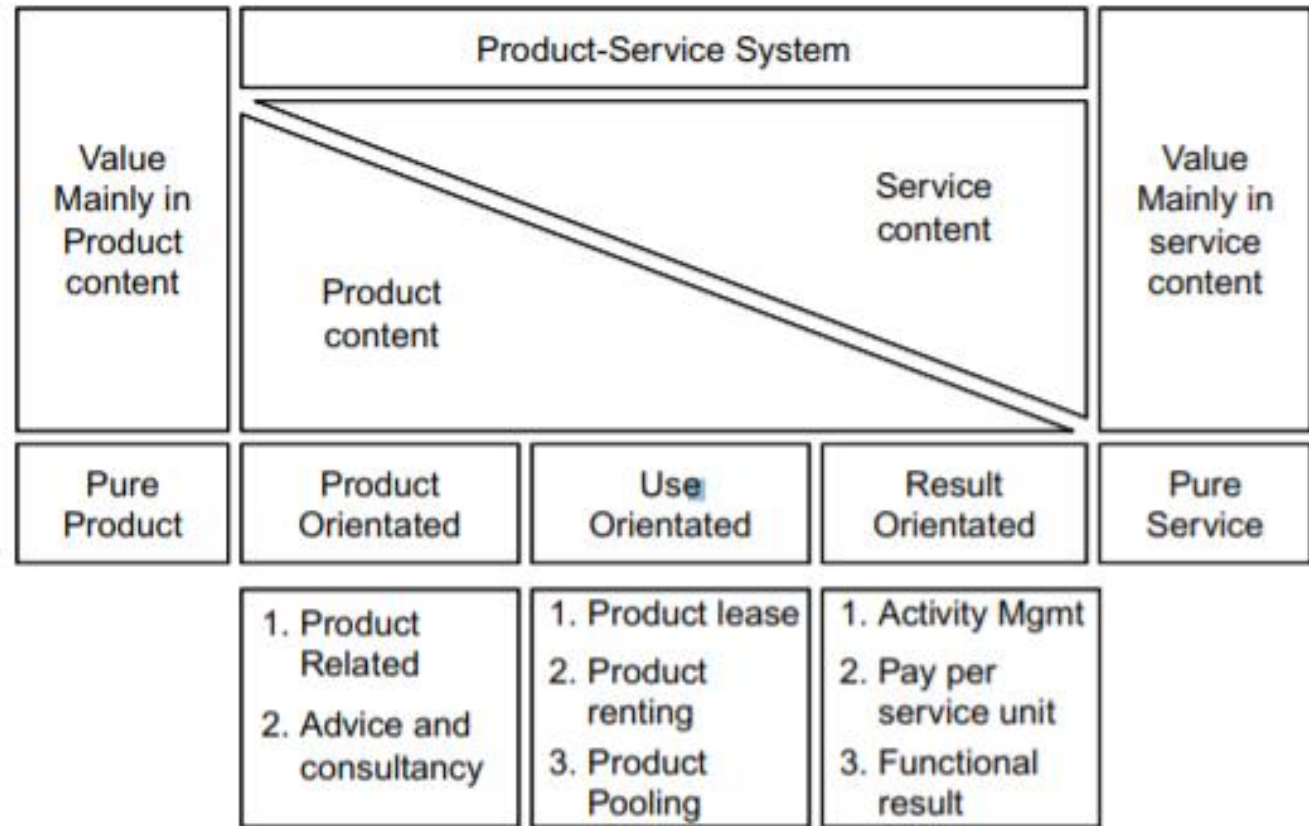


Services

- ✓ Inputs in manufacturing and service
- ✓ Customer itself is an input

Product characteristics – Services vs. Manufacturing

Product
Automobiles



Source: Tukker (2004)

Manufacturing

Services

Customer involvement – Services vs. Manufacturing

Customer participation in the service process

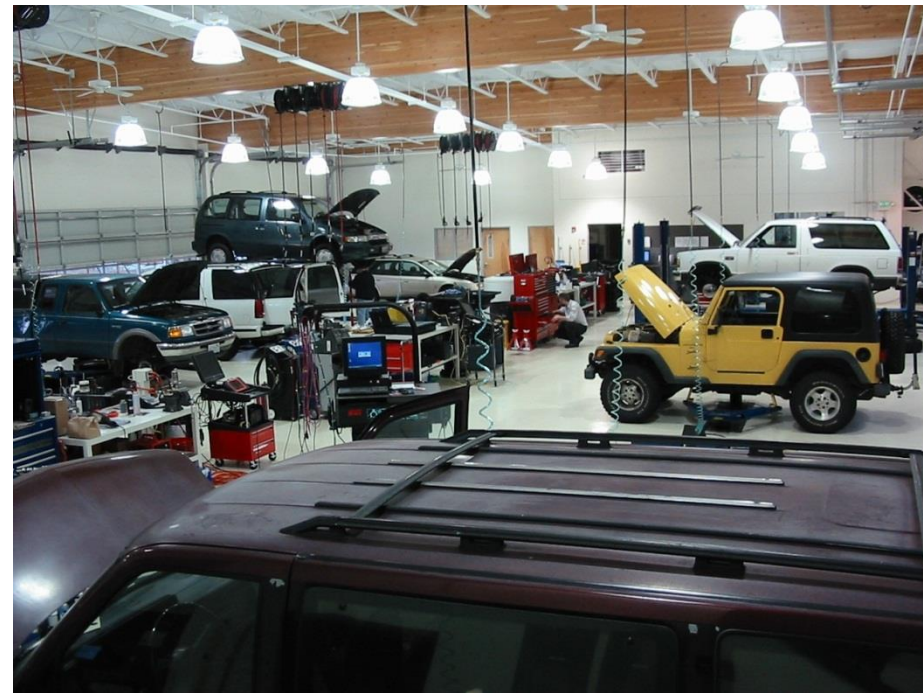


- ✓ Service facility design from a customer's perspective
- ✓ Attention to interior decorations, furnishings, layout, noise levels etc.

Customer involvement – Other nuances



Dominos/Pizza hut –
Customers viewing the
pizza preparation area



Auto repair Bay
area

✓ Customer scrutiny to promote confidence

Customer involvement – Other nuances



✓ Active role of customer in service chain

Inventories – Manufacturing vs. Services

Simultaneity



- ✓ Services are created and consumed simultaneously
- ✓ Services can not be inventoried

Inventories – Manufacturing vs. Services



✓ Inventory control vs. Queuing

Life – Manufacturing vs. Services

Perishability



✓ Perishable commodity

Tangibility – Manufacturing vs. Services

Intangibility



- ✓ Customer able to see, touch and test the performance

The Service Process Matrix

Degree of interaction and customization

Low

High

Service Factory
(Airlines)

Service shop
(Hospital/Auto
repairs)

Service
process
Matrix

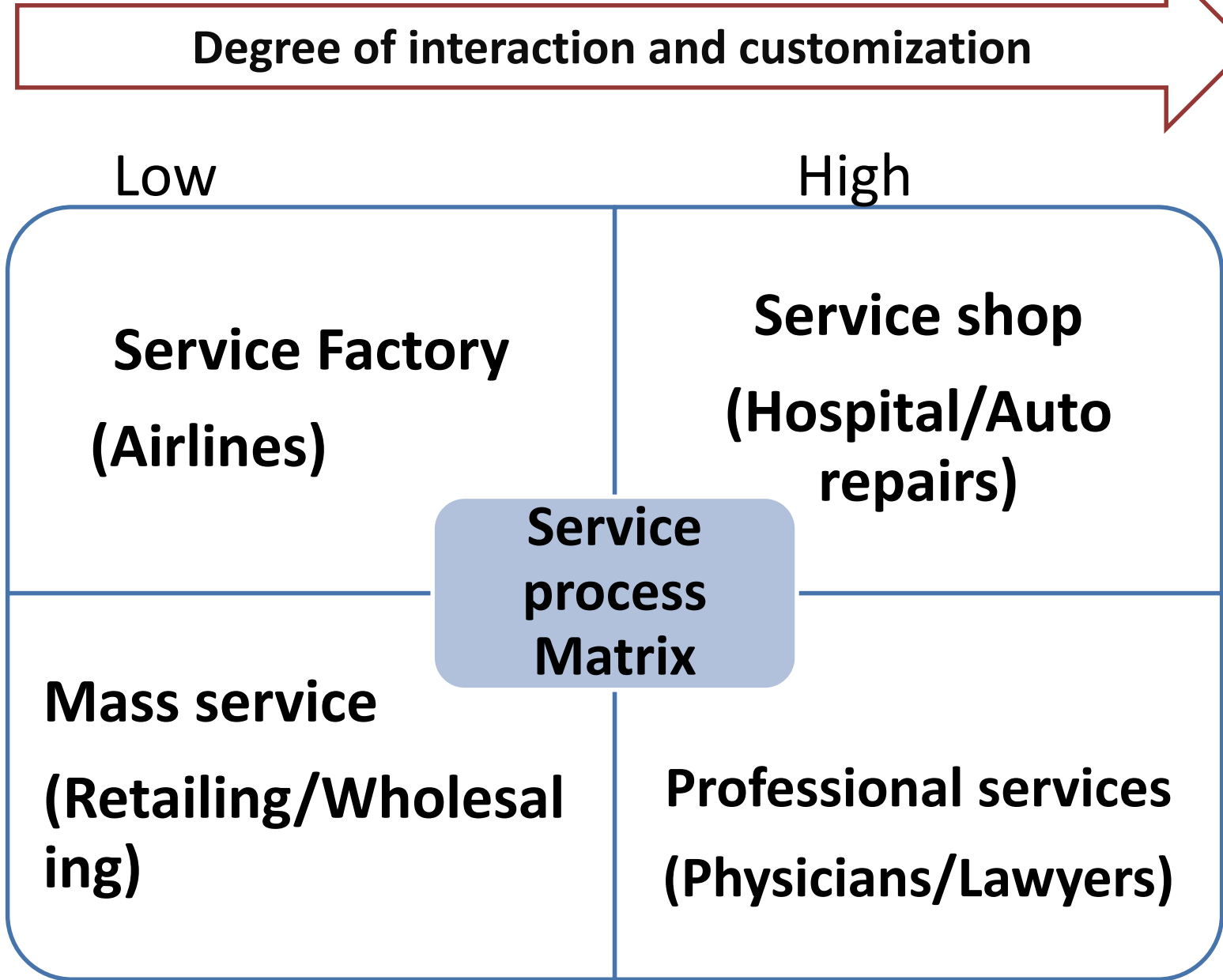
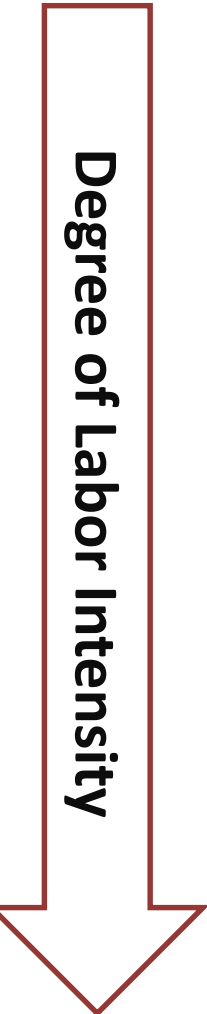
Low

Mass service
(Retailing/Wholesal
ing)

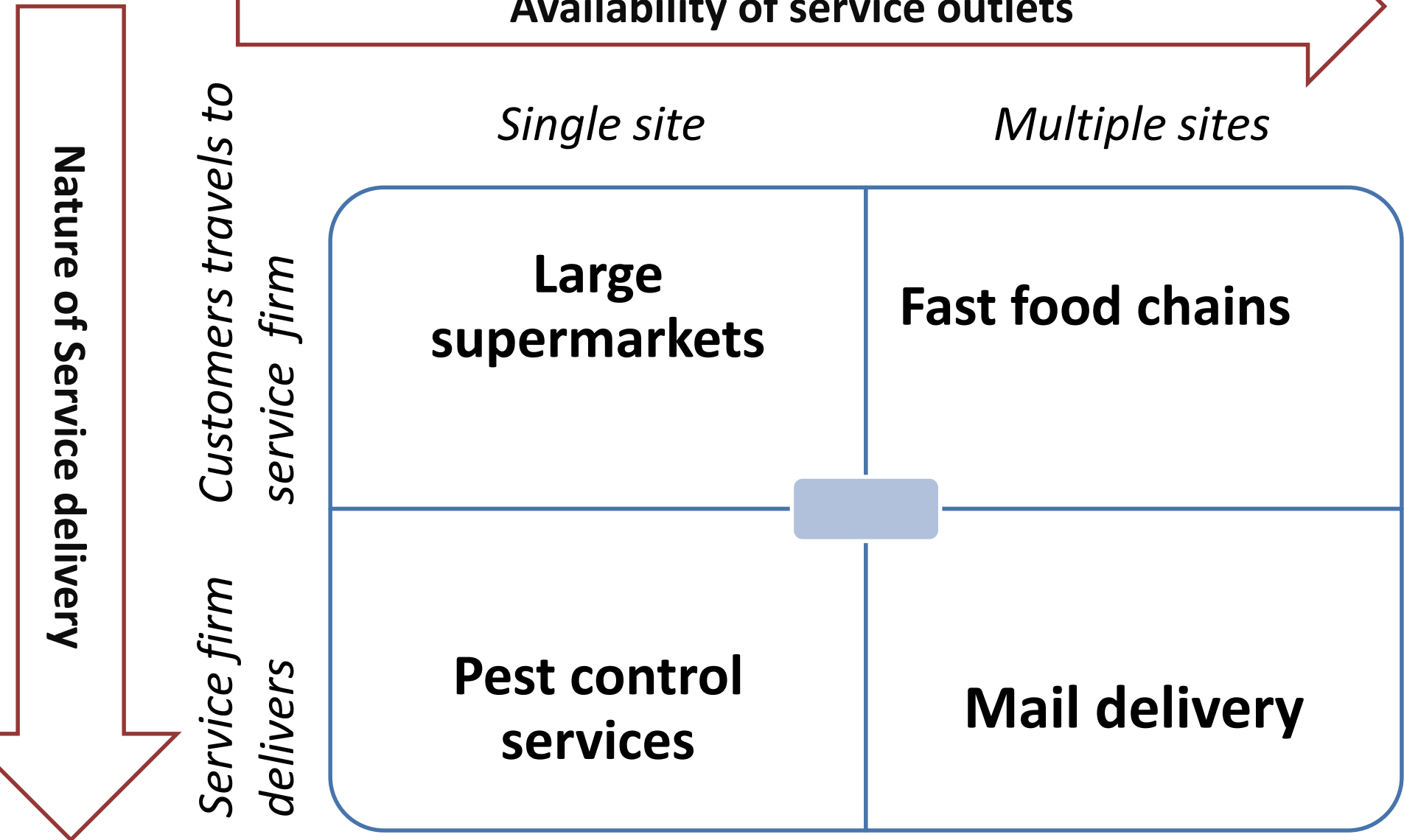
Professional services
(Physicians/Lawyers)

High

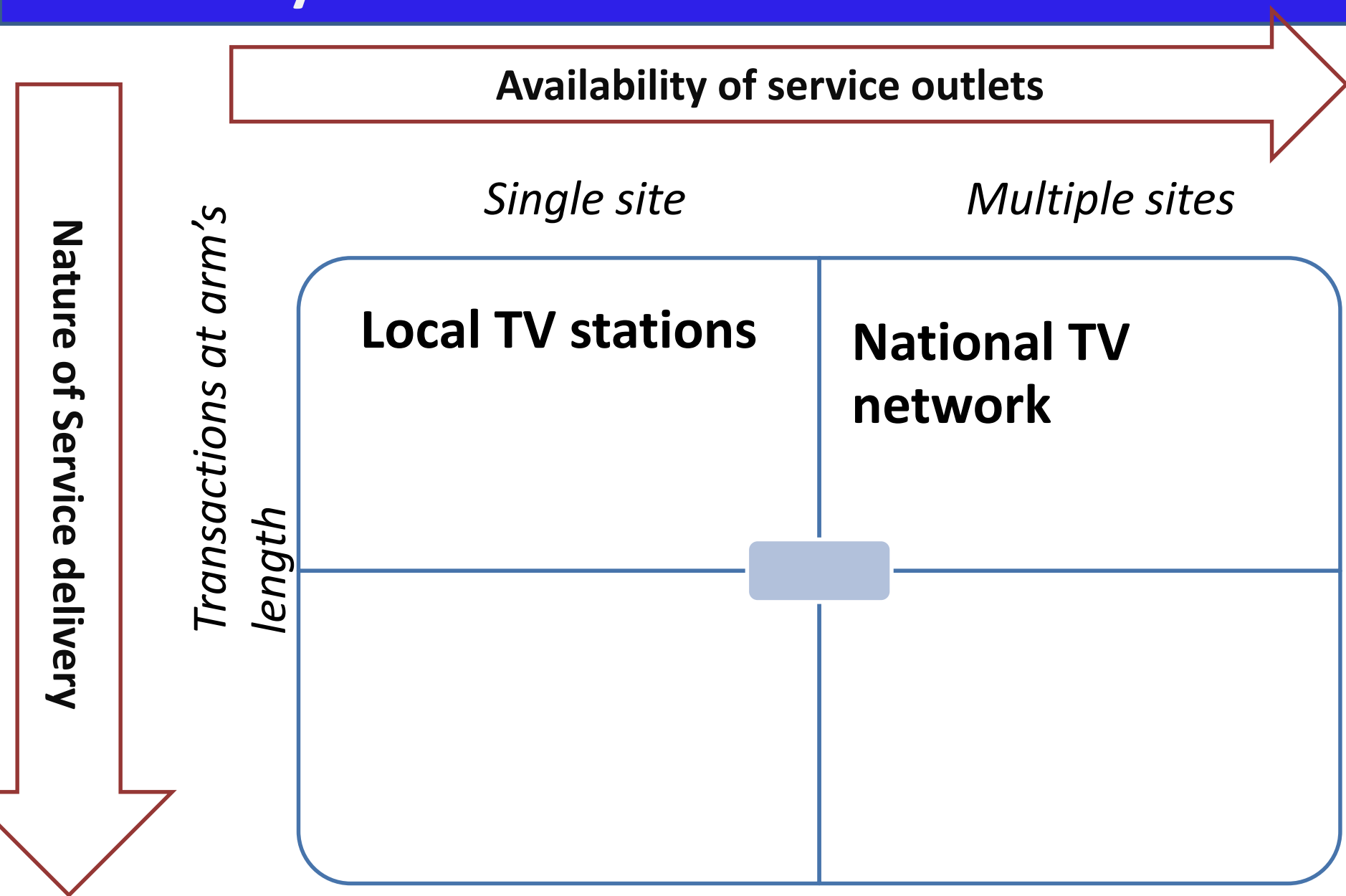
Degree of Labor Intensity



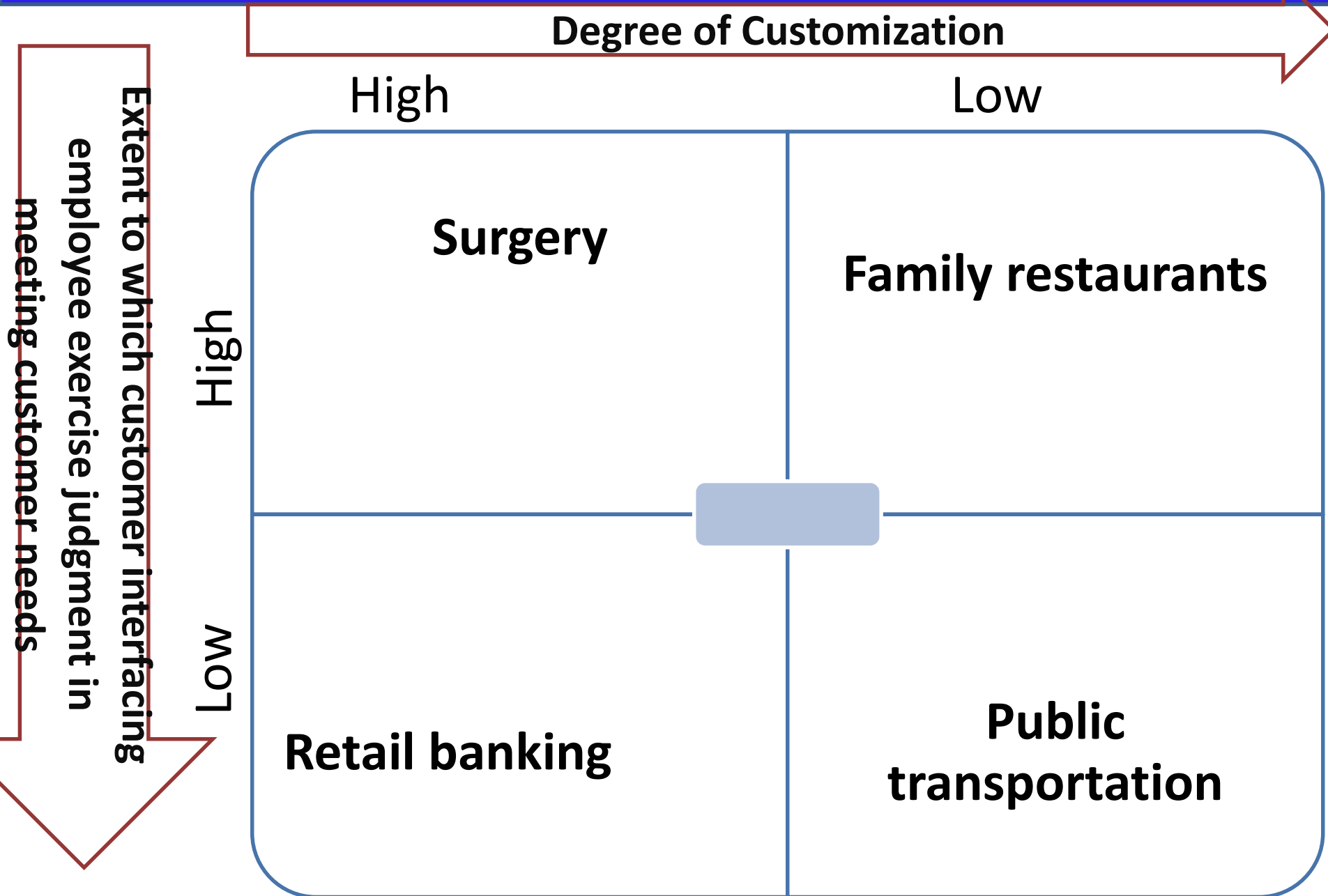
Availability of service outlets



Availability of service outlets



Degree of customization





Service Strategies



i. COST LEADERSHIP STRATEGY

a. Low Cost Strategy



- ✓ No frills
- ✓ Lower administrative/overhead cost

b. Standardization a custom service



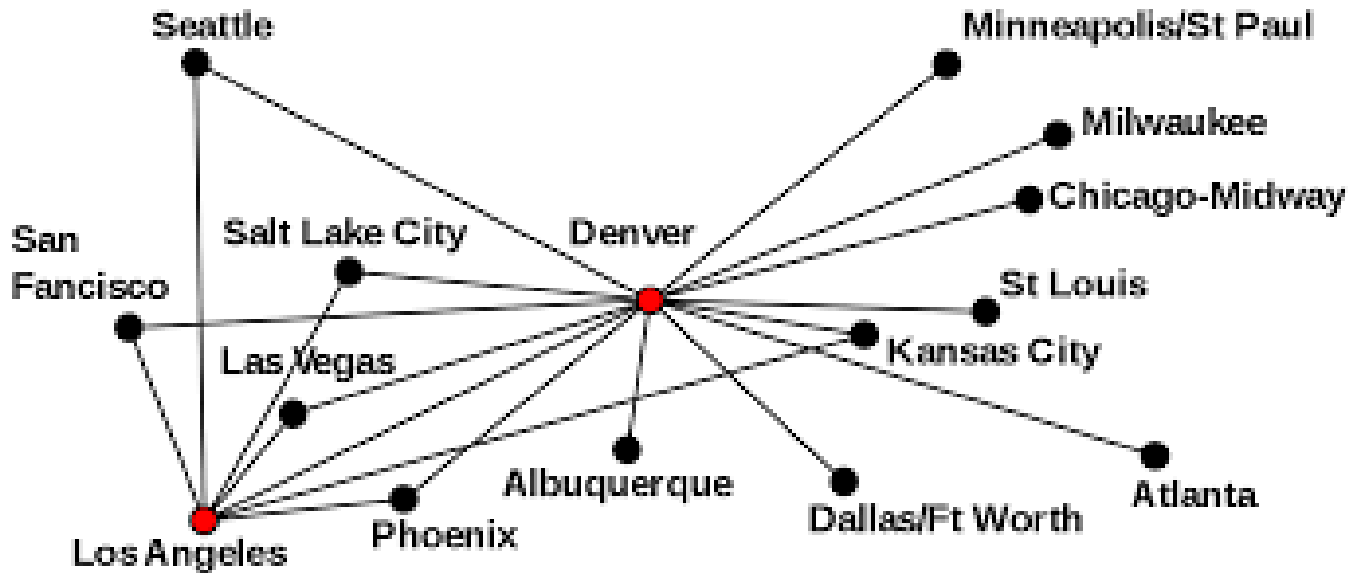
- ✓ Servicing at a car service station
- ✓ Standard operating procedures (SOPs)

c. Minimizing/reducing personal elements in service delivery



✓ Reducing transactional costs

d. Reducing network costs



- ✓ Hub and spoke model
- ✓ Lesser complexities
- ✓ Better utilization of resources
- ✓ Complicated operations such as sorting, and accounting can be carried out at the hub itself.

Hub and Spoke vs Point to point

Key attributes	Hub and Spoke	Point-to-point
Scope	Optimized by connecting service to wide geographic areas and many destinations	Each route serves a single-city pair. Individual routes may be dispersed
Connectivity	Most passengers connect at hub(s) for continuing flight(s) to destination	No connections provided (Although incidental or “rolling” connections are common)
Demand	Varying demand in any given city-pair may be offset by demand from other markets	Only varying frequency and pricing available to counter demand variance
Market size	Efficiently serves cities of greatly varying size	Requires high density markets with at least one end-point being a high demand origin/destination

Source : Journal of Aviation/Aerospace Education & Research

Key attributes	Hub and Spoke	Point-to-point
Frequency	Supports high daily frequency to all destinations	Generally lower frequency depending upon market type and density
Cost of operations	Hub connection increase cost per available seat mile. Offsetted by use of larger mainline aircraft	Typically lower cost per available seat per pair city
Fleet requirement	Large range in seating capacity is Suited to a single fleet type necessary to match capacity with traffic, usually requires more than one fleet type	Suitable to single fleet type/limited fleet type
Dependence	Each route highly dependent upon other routes for connecting passengers	Routes operate independently, traffic is not affected by demand from other routes

Source : Journal of Aviation/Aerospace Education & Research



ii. Differentiation strategy

a. Making the Intangible Tangible



✓ Complimentary toiletry items

b. Reducing perceived risk



- ✓ Service manager explains the problems and suggests remedial actions

Sector specific classification of service economy

B2B services	B2C services	Internal services	Public services (G2C/G2B)	Not-for-Profit
<ul style="list-style-type: none">- Maintenance- Consultancy- Training & Development (Cluster 1)	<ul style="list-style-type: none">-Shops-Hotels-Banks (Cluster 2)	<ul style="list-style-type: none">- Finance- Purchasing- HR- IT (Cluster 3)	<ul style="list-style-type: none">-Prisons- Govt. Hospitals- Govt. school (Cluster 4)	<ul style="list-style-type: none">- Faith Organizations- Aid agencies (Cluster 5)

End users typically does not have any choice (limited choice at times) –
Which clusters?

Usually purchased by professionals who are not necessarily the end users – **(B2B or B2C)**

Beneficiaries are self-selecting or chosen receipts – **Which clusters?**

Different services within a sector

Key attributes	Low-Cost airlines	Full-service airline
Business model	High volume, Low cost	Global network
Network	Short hauls with no connection to other carries	Long haul with connections to global partner airlines
Cabin services	Basic, no food, no frills	Range from economy to first class
Locations	Secondary airports	Primary airports to allow interconnection

Agarwal packers and Movers

Service delivery model

Indigo/Spice jet

Air India

(Extent of low-cost approach)

Broad strategy

Tata Motors

Caterpillar

(Product diversification)

Agarwal packers and Movers

Broad strategy

Barbeque Nation
(Satiating relatively well-off
individuals/families)

A broad strategy essentially is the core philosophy driving the organizations' way of creating wealth for its stakeholders

Agarwal packers and Movers

What lies are the core of operating strategy of APLM?

Operating strategy should be such that it must be linked to core business objective of the organization. In APLM's case it is essentially enhance customer service

Agarwal packers and Movers

TQM (Total quality management) principles – Impact on balance scorecard (S Q D C M I E)

TQM principles have been deployed extensively in the manufacturing in the past

Some TQM principles in action in case of APML?

- a) Commitment (blessing) of top management
- b) Meeting (exceeding) customer needs
- c) Engagement and empowerment throughout the organization
- d) Reducing product/service cost
- e) Reduction in cycle time
- f) Instituting improvement teams – Sustain (Continuous vs. continual)
- g) Recognition and celebration - checks and balances

Agarwal packers and Movers

APML is a large organization with many branches throughout India? How are the innovations, processes sustained and implemented across India?

a) **Standardized organizational book**

- Functions and roles of individual department are mapped
- Dynamic in nature (as soon as new service/product innovation is launched the books are also updated periodically)

b) **Training programs are instituted at all levels to prepare for new service innovation**

- Defensive driving training in view of increasing truck accidents
- Behavioural training

Agarwal packers and Movers

How do you rate the service innovation approach of APML?

Reactive or proactive

Can you have a pure reactive or a pure proactive approach?

What are the ways APML can improve further?

- Benchmarking
- Digitization/Digitalization

Operational Excellence

Productivity vs. Efficiency

	Plant A	Plant B
8-hour shift	200	250
Capacity	250	400

Which plant is more productive?
Which plant is more efficient?

Operational Excellence

If Bob sells \$10,000 worth of insurance during the month while Joe sells \$9,000, **who is more productive?**

If Bob sells \$10,000 worth of insurance during the month (and incurs traveling expense of \$3000), while Joe sells \$9,000 (incurs \$100 of phone expense) **who is more efficient?**