

# 3. "Outside-in" or "Customer-centric" Design

---

8 September 2008

Bob Glushko

## Plan for ISSD Lecture #3

---

"Inside-out" vs "Outside-in" design foci

The "manufacturing mindset"

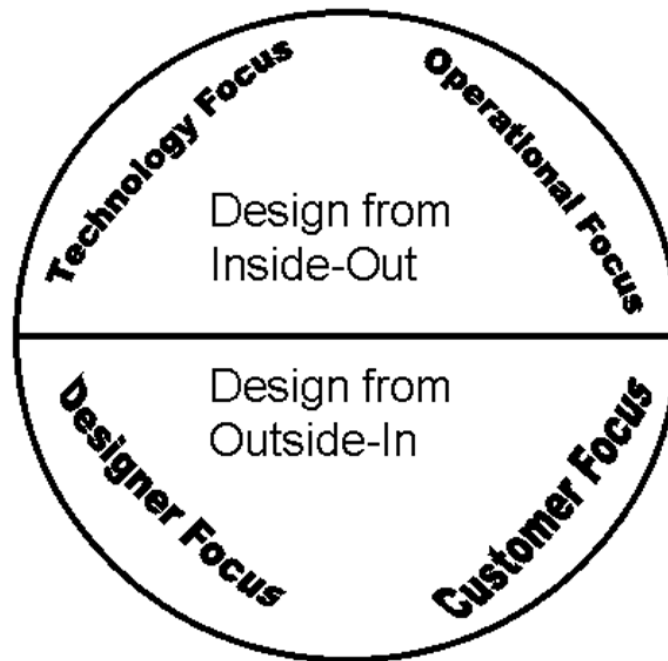
The transition to a "service mindset"

"The Experience Cycle"

"Turning Shoppers into Advocates"

# Four Ways to Focus Design

---



## Inside-Out Design Foci

---

Operations - improving the operational processes by which products or services are produced, managed, delivered; focus on efficiency, productivity, "input-based" measures to reduce costs: MAKE IT PROFITABLE

Technology - using improved or new technologies in products to increase functional capabilities, performance, reliability, or other values in the delivered product or service: MAKE IT WORK

# Outside-In Design Foci

---

Designer - inspire a need or evoke desire in a product or service:  
MAKE PEOPLE WANT IT

Customer - make products and services that meet customer needs:  
MAKE IT SELL

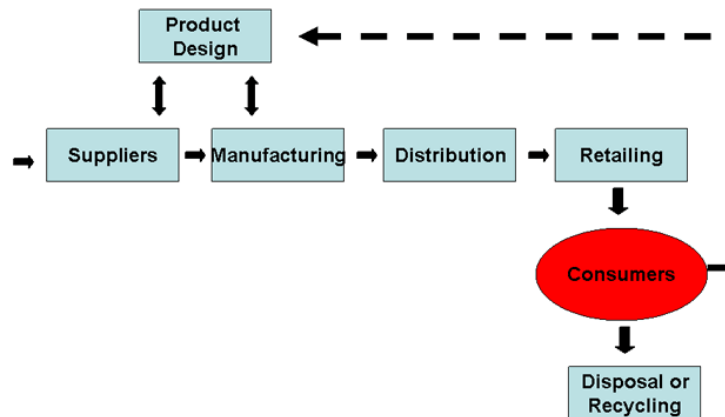
# Designer-Driven Design

---



# Typical Manufacturing System

---



## "Experience by Default"

---

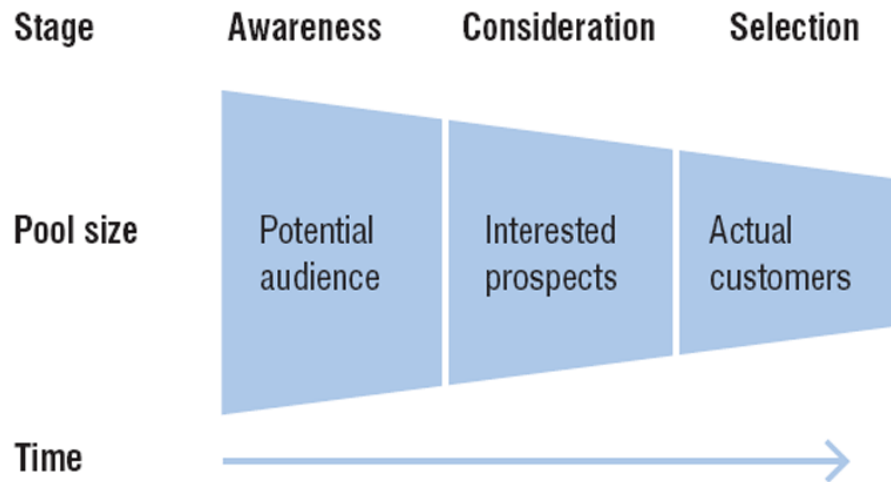
Companies with an operations/manufacturing or technology mindset can be dominated by a belief that they compete on the basis of product cost, features, or quality

As a result, they don't focus on the experience that customers have with their offerings

And firms view the customer experience as something that happens at the end of the processes that they carry out

# Product-oriented Sales Funnel

---



## "Manufacturing of Services"

---

Mills and Moberg "Perspectives on Technology of Service Operations" (1982) was first paper to contrast and extend manufacturing system concepts to service design and delivery

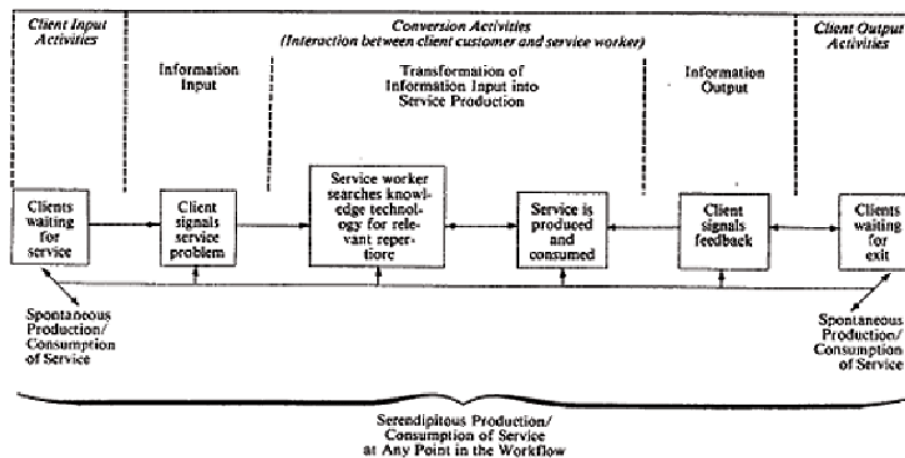
In a "service production system" services are co-produced by the "service worker" and the customer

The former is a "mini-factory" because they both help produce the output and are simultaneously involved in selling it

The interactions between the service worker and the customer are "transactions" in which they exchange information and commitment

# Mills & Moberg - Service Production System

---



## The "Technical Core" in a Production System

---

A firm's TECHNICAL CORE consists of its technologies and skills (of its workers) that perform its essential work

Rational firms "seal off their technical core" from internal and external sources of uncertainty in order to create a "closed loop system"

(In other words, try to control inputs from customers so they don't mess up the manufacturing process)

Techniques for "sealing off the core" include "buffering" (use of inventories) and "smoothing" or "rationing" (to manage supply and demand)

# Limits on Sealing Off the Technical Core in Service Systems

---

The technical core can't be sealed off entirely because people engage in "cycling, aborting, and serendipitous" processes (unlike raw materials)

Denying service to customers who would cause problems, or "socializing" customers to be better behaved are "rationing" techniques that reduce uncertainty, but require additional service operations

Making the service transaction more routine and disallowing any exceptions can make service times more regular

But unlike manufacturing efficiency, service efficiency obtained in this "Take it or leave it" way undermines the customer experience

---

## Products, Services And "Value"

---

It is easy to imagine that most of the value in a product is added by the processing of the materials that go into it; to build a car we process rubber to make tires, leather to make seats, steel to make the chassis and body...

But even for cars, a great deal of value comes from intangibles and services before and after the product is purchased

And for many products like clothing, pharmaceuticals, and software the cost of the raw materials is a negligible component of the value

And for many products like airplanes the customer who buys them does so in order to use them to provide services to its customers -- people who travel

# The Product Life Cycle from the Customer's Perspective

---

Determining requirements and justifying purchase of the product

Finding a product supplier

Financing the product

Installing the product

Modifying other products or processes to work with the product

Maintaining the product and replacing parts

Training personnel to use the product

Upgrading the product

Disposing of product waste

Disposing of the product

## Why Product Firms Are Looking to Services

---

Services have always been part of product life cycle, but now we're in an "information and service economy" and firms must work harder to:

### GENERATE REVENUE

- Increased global competition and more informed customers make it harder for firms to be profitable
- In many technology-intensive industries, Moore's Law and automation relentlessly commoditizes products and reduces costs, so revenues decline

### SATISFY CUSTOMER DEMAND

### STAY COMPETITIVE



# A 1-Minute "MBA Moment" -- Profitability and Margins

---

Discussions about a firm's need to generate new revenue usually are focused around its profitability and margins

Profit margin (or net operating margin) is simply earnings (or profits) divided by sales

Profitability and margins differ across industries and indicate the amount of competition in the industry

Margins go up when a firm's costs decline, when it gets more efficient, or when it introduces new products for which it can charge premium prices

Margins go down when its costs go up, when it gets less efficient, or when competition drives down the prices it can charge for its products

See [www.bizstats.com/corpnnetincome.htm](http://www.bizstats.com/corpnnetincome.htm)

---

## Maximizing Margins

---

Within a given industry, the firms with the highest profit margins are those:

That are best at controlling costs through operational efficiency

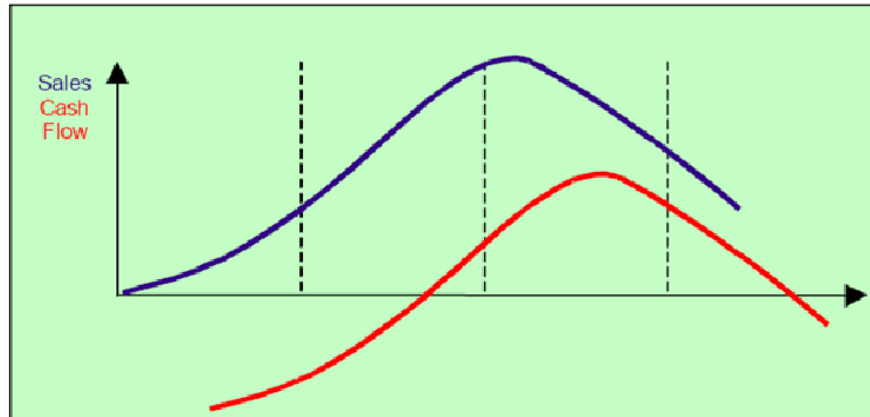
That are best at inventing and bringing to market new products and services

That are best at engineering and marketing an optimal mix of product and service offerings with a carefully controlled pricing structure

# The Traditional Sales and Cash Flow Cycle

---

In the "good old days" companies could expect to make a lot of money on new products because the slower pace of technology innovation gave them a long time to recoup the cost of new product development

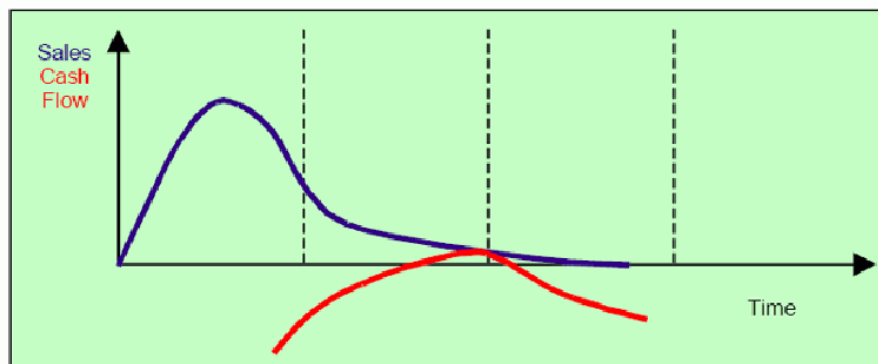


# No More Cash Cows

---

Rapid technology innovation shrinks product life cycles so margins from new products shrink more rapidly and there is less time to "milk the profits" from the "cash cows"

So firms need to introduce products and services more rapidly, and more closely customize them to capture and retain customers



# The Big Shift - Where is Value?

---

The inside-out perspective assumes that firms create value when they build products or systems or service capabilities

This value is thus determined by the producer, and then delivered to and received by customers

But in "the new economy," an emerging perspective is that value isn't created until the product/system/service is used

This means that value is "co-created" with the customer, and different customers will create different kinds and amount of values

## Toward "Service-dominant Logic"

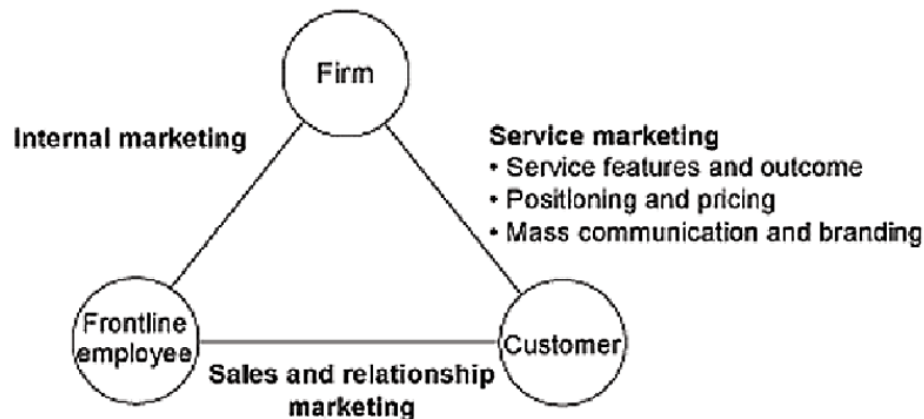
---

This shift or reframing from "goods-dominant logic" to "service-dominant logic" has been led by: Stephen Vargo & Robert Lusch. ["Evolving to a new dominant logic for marketing." *Journal of Marketing*, 68(1), 1-17, January 2004.]

But it has been emerging in service design and operations for a couple of decades as firms (even product-dominant ones) recognized the role of their "frontline" employees in sales or delivery roles in enabling the customer to have a good experience

# The "Service Triangle" & "Co-production"

---



## The Transition to "Outside-In" / "Customer-Centered" Design

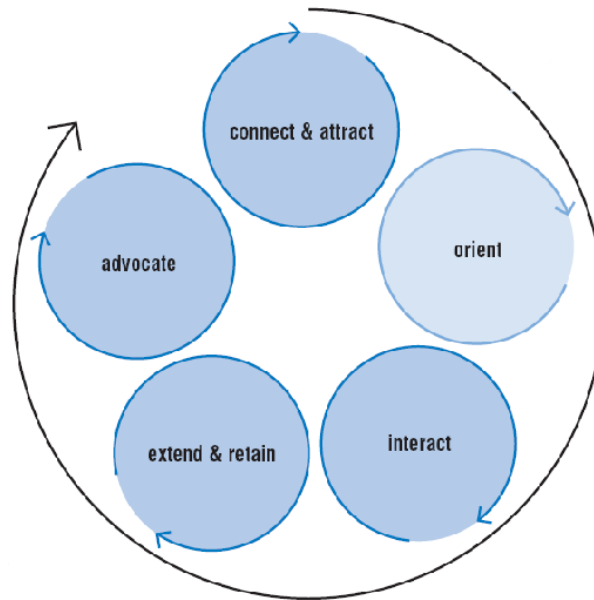
---

If product firms produce "experience by default," how do they come to produce "experience by design"?

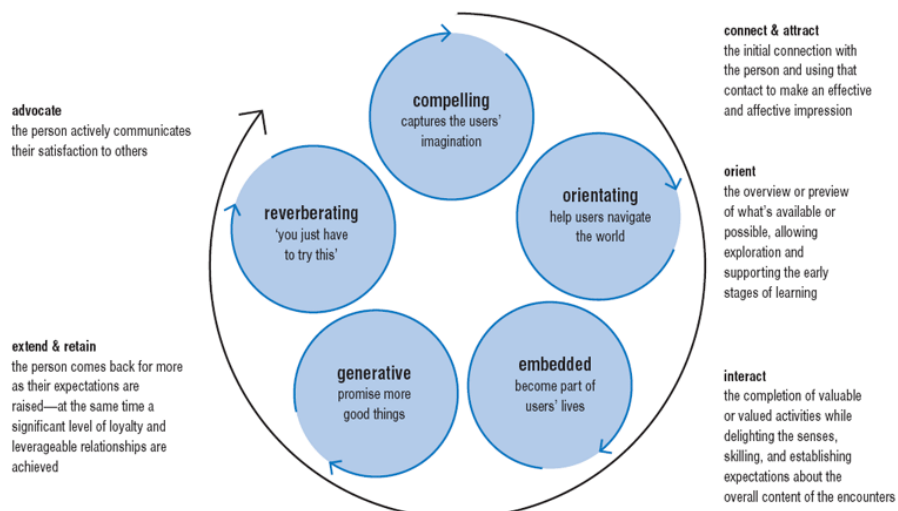
Empowering customer-facing employees to care about the customer experience is necessary, but far from sufficient

That's because the customer experience is determined by much more than just the "last encounter"

# "Experience Cycle" -- Recursive Encounters



# "Experience Cycle" -- Ongoing Relationships



# "Turning Shoppers into Advocates"

Product-centered retailing operations don't have a unified view of the customer or the customer experience

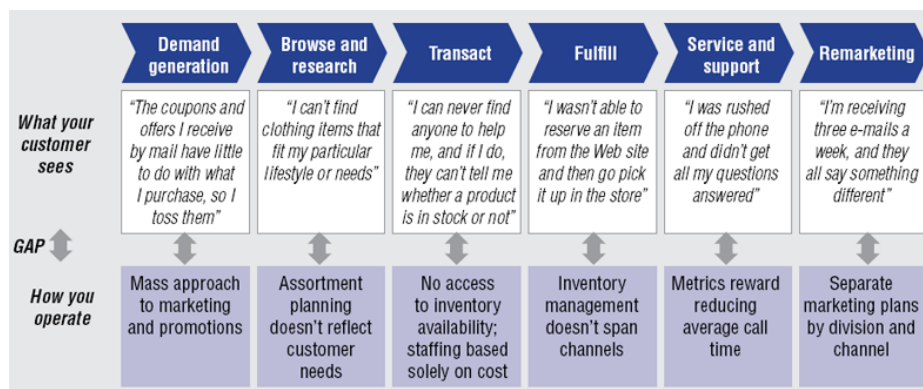
Retailers capture lots of information about customers, but it isn't leveraged across the company

Customer-centered retailers systematically integrate knowledge of what the best customers want and expect from their brand into every core operational decision

But do they even know who their customers are?

Which customers are the best ones?

## A Disconnected Shopping Experience



# Distribution Patterns

---

"Turning shoppers into advocates" assumes that the manufacturer can get information about customers and their transactions... but this is a big assumption

You can sell direct to a customer online or in your own "brick and mortar" stores

But if you sell indirectly through intermediaries / distributors, you might not get all the information you'd like

If you sell both direct and indirect you can have "channel conflict"

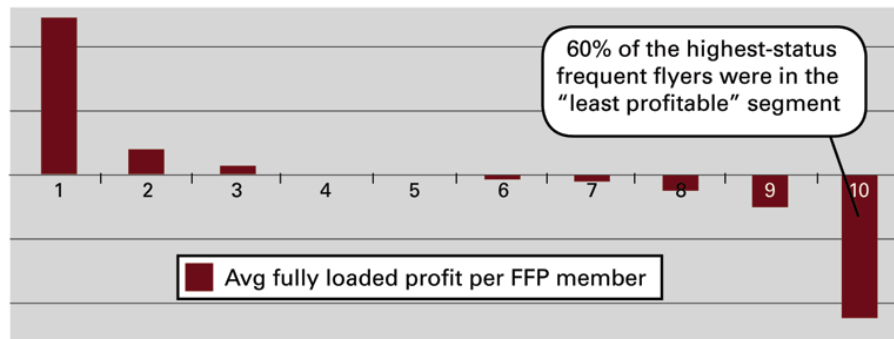
# The Mandate For Customer Data

---

You must get more information about what the customer actually does with your product, and then you have to use what you've learned

CUSTOMER DATA LIFECYCLE		
Stage 1: Collecting data	Stage 2: Mining data	Stage 3: Operationalizing data
<p>Objectives:</p> <ul style="list-style-type: none"><li>• Collect, validate and refresh data in a customer-centric manner</li><li>• Gather this data in real time</li></ul> <p>Key Challenges:</p> <ul style="list-style-type: none"><li>• Data warehouse project that becomes too complex and/or too expensive</li><li>• Real-time connectivity to customer behavior at the point-of-sale</li></ul>	<p>Objective:</p> <ul style="list-style-type: none"><li>• Develop customer behavior information and insights which can be used to create initiatives or promotions that will generate a positive financial return</li></ul> <p>Key Challenge:</p> <ul style="list-style-type: none"><li>• Become overwhelmed by the amount of data or by data quality issues</li></ul>	<p>Objective:</p> <ul style="list-style-type: none"><li>• Use these insights to deliver a personalized customer experience at each touch point in real time</li></ul> <p>Key Challenges:</p> <ul style="list-style-type: none"><li>• Change front-line staff, processes and systems to use insights</li><li>• Real-time connectivity and reliability</li></ul>

# Frequent Flyer Profitability



\* Decile 1 = most profitable FFP members; Decile 10 = least profitable

# Integrated Shopping Experience





## Readings for 10 September

---

Carl Kessler & John Sweitzer, Chapter 2 – "Understanding your stakeholders," *Outside-in Software Development*, IBM Press, 2008.

Janice Rohn, "How to organizationally embed UX in your company," *Interactions*, May-June 2007.