Self-Service Technologies: Innovation and Execution

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My Perspective

- Academic Director, Center for Services Leadership, ASU
- Business, specifically marketing and consumer, perspective on services
- Active in Services Marketing & Management research for over 25 years
- Research focus on understanding service excellence and service delivery from the customer’s point of view
- Co-author of *Services Marketing: Integrating Customer Focus Across the Firm*
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The proliferation of technology is dramatically changing the way that firms interact with their customers and the offerings that are possible.

→ Service Innovation ←
Technology allows

- **Customers** to produce service entirely on their own
- **Employees** to work remotely, providing services from anywhere in the world
- **Companies** to integrate technology into a total mix of remote and personal services
Examples of SSTs in Use

- ATM
- Pay at the pump
- Automated airline check-in
- Automated hotel check-in/out
- Automated car rental
- Automated filing of legal claims
- Automated drivers license testing
- Automated betting machines
- Electronic blood pressure machines
- Various vending services (food, drink, cameras, etc.)
- Tax preparation software
- Self-scanning at retail stores
- Internet banking
- MVD auto registration on-line
- On-line auctions
- Home & car buying on-line
- Automated investment transactions
- Insurance on-line
- Package tracking
- Internet shopping (Amazon.com, Gap, E-Stamps, etc.)
- Internet information search
- Various IVR phone systems (phone banking, prescription ordering, etc.)
- Distance learning/training
Yet the roll-out and implementation of technology-based services is often not successful
Challenges that have resulted

- How to control service quality remotely
- How to motivate customers to use self-service
- Trade-offs between technology and human touch
- Trade-offs between cost-savings of technology-delivered service and personal relationships with customers
ASU Research on SSTs

- Technology Infusion in Service Encounters

- Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters
  - *Journal of Marketing, July 2000* (Meuter, Ostrom, Roundtree and Bitner)

- Implementing Successful Self-Service Technologies
  - *Academy of Management Executive, 2002* (Bitner, Ostrom and Meuter)

- The Influence of Technology Anxiety on Consumer Use and Experiences with SSTs
  - *Journal of Business Research, 2003* (Meuter, Bitner, Ostrom and Roundtree)

- Customer Adoption of Self-Service Technologies
  - *Journal of Marketing, 2005* (Bitner, Ostrom, Meuter, Brown)

- The Effects of Incentive Timing on Trial and Usage of Internet-Based SSTs
  - *Work in progress* (Cadwallader, Bitner, Kulik and Roundtree)

- Frontline Employee Motivation in the Implementation of a New Service Innovation
  - *Under Review,* (Cadwallader, Bitner, Jarvis, and Ostrom)
Study 1:  
Customer Adoption of SSTs
Project in Partnership with CAREMARK®

It all starts with care®
Research Questions

• What is the process consumers go through in deciding to adopt a new SST?

• What factors influence whether consumers will try a new SST?
Research Context

- Mail order pharmacy customers
- Two projects over a two-year time frame
  - Automated Voice Response Ordering (828 responses)
  - Internet Ordering (723 responses)
- Reordering choices
  - CSR by phone
  - Mail
  - Automated Voice Response
  - Internet
Customer Adoption of Service Innovations

Awareness
Investigation
Evaluation
Trial
Repeated Use
Commitment

Role Clarity
Motivation
Ability

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We call this “Consumer Readiness”

- **Role Clarity:** the customer’s understanding of what functions are required, what to do and how to do it.
- **Motivation:** the customer’s perception that there is a benefit in using the SST (compared to other alternatives).
- **Ability:** the customer’s self-confidence that he/she possesses the skills and has the necessary equipment to use the SST.
“I haven’t used it just because of the unfamiliarity with the machine itself and the process. The steps of, do I have to punch in my credit card number? Do I have to punch in my debit card number? Do I have to slide it in and out? What other questions is it going to ask me?”

(pay at the pump; M, 29)

“After you’ve ridden on a plane to get to your destination, if you don’t know how to do it, you’re too tired to figure out how to use it and no one has really said ‘here’s how you use this’ so I never have. I don’t know how to use it. I’m not sure what it does. I mean, does it spit out car keys? I mean I just don’t know how to use it, they could explain that.”

(automated car rental; F, 27)

“I wouldn’t use it unless I understood what I was doing. I’d be less likely to even try it if I didn’t understand it.”

(on-line prescription services; F, 29)
Role Clarity . . .
Motivation

“I like anything high tech. I’m a very gadget-y kind of person.”
(self-scanning of purchases; M, 35)

“It’s not that I hate checking out at the desk, it’s just more the speed. It’s not that I mind doing it the face-to-face way, it’s just that in the room, you click it and you’re done and when you go downstairs you have to wait in line.” (automated hotel check out; M, 27)

“There are no incentives, nothing. If they said you’d get $10 off, I’d use it.” (automated car rental; F, 27)

“I wouldn’t be intimidated by the process but I wouldn’t want to do it. I think they should be doing that for the prices I pay. I guess it’s just the perception of why should I have to do it?”
(self-scanning of purchases; M, 33)
Striking a Balance
Firm vs. Customer Benefits

- **Firm Benefits**
  - Cost savings
  - New channels / customer development
  - Increase loyalty and/or satisfaction
  - Competitive forces
  - Better coordination across outlets or channels
  - Standardized service delivery
  - Revenue driver

- **Customer Benefits**
  - Time savings
  - Cost savings
  - Convenience
  - 24/7 access
  - Enjoyment
  - Sense of power or control
  - Improved service delivery
“I won’t be able to figure this out so I’m not going to do it.”
(automated hotel check out; F, 27)

“No way, I think when you’re talking about serious money and trading and selling stocks and bonds, whoa! I wouldn’t want to do the wrong thing with my money, especially in the stock world. I would probably screw it up.” (on-line investment transactions; F, 24)

“I probably would but I don’t have Internet access at home.”
(on-line prescription services; F, 26)
Key Research Findings

• Awareness and positive evaluation are important in getting consumers to try SSTs

• Consumer Readiness variables are equally critical
  – Role Clarity and Motivation are the dominant factors
  – Ability is important as well, but is dominated by Role Clarity and Motivation

• Implementation is key to success of new, innovative service technology!
Lessons Learned

- Be very clear in the strategic purpose of the SST
- Maintain a customer focus
- Actively promote the use of new SSTs
- Educate and train customers to use the SST
- Prevent and manage failures
- Offer choices
Study 2: Frontline Employee Motivation in Service Innovation Implementation
Project in Partnership With Ford
Research Questions

• What is the role of frontline employees in the successful implementation of consumer SSTs?

• What factors influence whether employees will be facilitators or inhibitors of the service innovation?

• How can managers motivate frontline employees to accept and recommend SSTs?
Research context and method

• Context
  – New technology-based service innovation for consumers
  – Automobile dealerships

• Methodology
  – Depth interviews with employees responsible for the SST, in pilot dealerships.
  – Over 300 surveys administered to general managers and employees at a sample of pilot dealerships.
Key Research Findings

• Employee motivation is key to success of SST roll out
  – Motivated employees are likely to recommend the SST and demonstrate its use

• Three levels of employee motivation
  – Global (personality trait)
  – Contextual (work and technology)
  – Situational (recommending the SST)

• Situational motivation is influenced by
  – Employee choice
  – Role clarity related to using the SST
Lessons Learned

- Employees are a primary conduit for accelerating end customer acceptance and adoption of SSTs.
- Develop an employee roll out process as well as a consumer roll out plan for SST innovations.
- Develop action plans aimed at increasing employees’ motivation, autonomy, and role clarity related to the SST.
Overriding Conclusions

“Innovative technology is no guarantee”

“Design for customers”

“Innovate with execution in mind”
Future Research

• Deeper exploration of customer motivation, role performance and role stress in self-service technology adoption and usage
• Extension of customer readiness construct into other contexts where there is a high level of customer co-production
• Cross-disciplinary understanding of service design issues - integrating design, marketing, technology
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