Product Service Systems as a service based competitive strategy

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Structure

Part 1: Product-Service Systems
Part 2: Servitization
Part 3: Conclusion
The challenge from the UK funding council (EPSRC)

“What is the research theme that will bring together the existing Cranfield capabilities in technology and management?”
A popular response

‘Our strategy is to help more manufacturers to move up the value chain and to reap the benefits of high-skilled, knowledge-intensive manufacturing operations’

Reflecting on competitive strategy

**Customer Intimacy:**
...creating the **best total solution** for the customer

**Operational Excellence:**
...delivering the **best total cost** to the customers

**Product Leadership:**
...the **best product** on the market

Adapted from Treacy & Wiersema, 1997
Competitive strategy in practice

‘Power by the Hour’

Rolls-Royce have successfully moved towards greater ‘customer intimacy’

A Product Service Systems refers to the technologies, processes & practices that specifically enable such a business model

This move from ‘manufacturer’ to ‘service provider’ places new challenges on the enterprise and manufacturing operations
Previous work on Product Service Systems
What is a Product Service System?

[definition]

An integrated product and service offering that delivers value in use. A PSS offers the opportunity to de-couple economic success from material consumption and hence reduce the environmental impact of economic activity. (Baines et al 2006)
Traditional purchase of an excavator

Use

Cash

Selection & disposal

Monitor

Consumables

Cash

Technology

Service
....buying an excavation capability

Use

Cash

Disposal

Cash

Technology

Service

Monitor

Consumables
PSS’ Examples

- Selling the “flying”… Royce Rolls Engine
  Source: http://news.bbc.co.uk
- Selling the “copying”….. Xerox, Canon, Oce & HP
  Source: mont, 2002
- Selling the “washing”….. Source: www.mccoubreyselectrical.com
- Selling the “driving”….. Source: www.carsharing.ca
Scandinavia

- Most papers are from the Scandinavian countries
- A few papers from Asia
- Increasing no. of papers from UK
Distributions of Journal Papers

One of the earliest PSS reports.
The Most Popular Authors

- **Manzini. E**
- **Tukker. A**

- Most authors are from Environmental, Sustainability, Economics and Ecology disciplines
- Fewer authors from design, engineering and manufacturing
PSS

[Summary]

- PSS is capable of achieving sustainable goal if it is properly designed
- Existing works mainly concentrated in Europe, with picking up interests from Asia
- Still very much at the conceptual stages
- No formal international working group formed thus far
Previous work on Servitization

The earliest use of the term ‘Servitization’
What is ‘Servitization’?

[definition]

... the increased offering of fuller market packages or ‘bundles’ of customer focussed combinations of goods, services, support, self-service and knowledge in order to add value to core corporate offerings (Vandemerwe & Rada 1988)
`Servitization` 

- Most definitive papers are from the USA
- Followed by the UK and Western Europe
- Contributions from Asia and the Far East are lacking
Sources of Papers / Articles


‘Servitization’

[Widely Cited Articles]

Vandermerwe & Rada. 1988 HBR ‘Servitization of Business: Adding Value by adding Services’

Chase & Garvin. 1989 HBR ‘The Service Factory’

Quinn et al 1990. HBR ‘Beyond Products: Services-Based Strategy’

Wise & Baumgartner. 1999 HBR ‘Go Downstream: The new profit imperative in Manufacturing’

Oliva & Kallenberg. 2003 International Journal of Service Industry Management ‘Managing the transition from Products to Services’
‘Servitization’

[Distribution of Topics / Themes]

- General Concept and Definition
- Drivers and Barriers
- Tools and Methodology
- Classification of Service Operations
- Service Models
- Customer Value
- Success Factors
‘Servitization’

[Routes to Servitization]

- Aftermarket services – a high margin business which can account for large chunks of corporate profits (Wise & Baumgartner 1999, Cohen 2006)

- Applications of Innovative Technologies – sensors and systems to provide machinery health monitoring, diagnostics and predictive maintenance

- Customer Intimacy – an obsession with the processes of solution development (Treacy & Wiersema 1997)

- Product Service Systems – integrated products and services that deliver value in use (Baines et al 2006)
‘Servitization’

[Summary]

- A concept which has been around for over 25 years
- Most prevalent in the USA
- Examples of successful implementation exist: GE, Xerox, Rolls-Royce
- Shifts the focus from operational performance to Customer Allegiance
- Literature on service operations strategy is small but growing
Part 3: Conclusion & future work