ESRC Social Science Week 2010

Servitization of Manufacturing

Woburn House Conference Centre Ltd

17 March 2010

The move to *service:* Value Co-creation and delivering on outcomes

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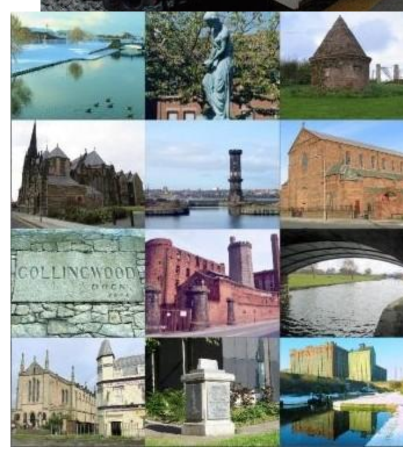
Value Co-Creation

The traditional approach – but for what purpose?

Services



Value = Benefits

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So let's look at this logically

- We buy products to obtain benefits
- What are the benefits
- How do we get the benefits?
- What is the role of the firm? The customer?
- The 'product' mentality of organizations

The co-creation of value

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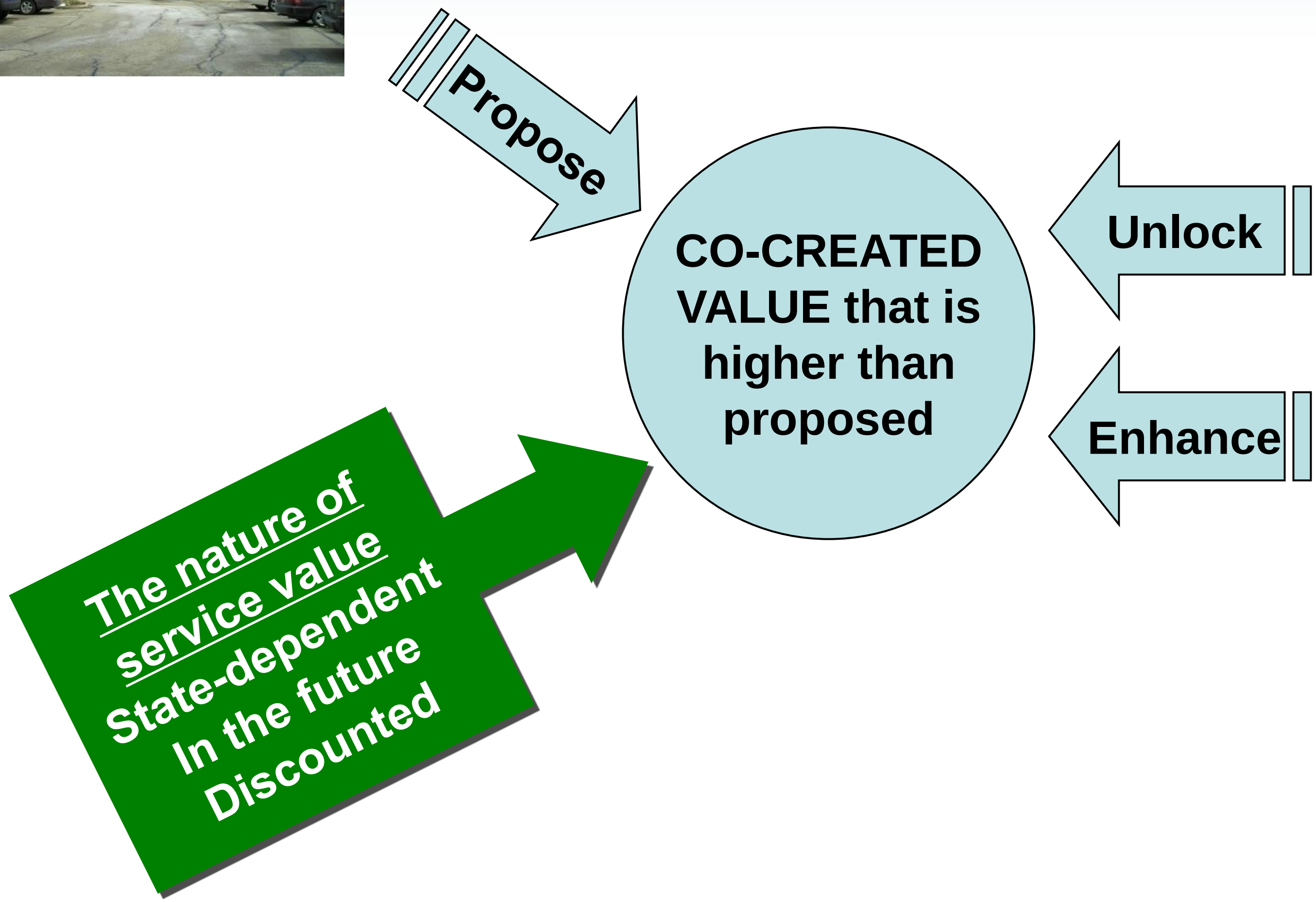

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A golf analogy

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Building the value proposition is learning to drive 250m in golf

Not understanding *service* is when you did not practice your putts

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So what is service then?

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It's making sure your customer co-creates the fullest benefits you intended to provide with your value proposition, and often even higher value than that proposed

Competition & Innovation occurs on 2 fronts:

- Providing a higher value proposition
- Co-creating the highest value with the customer

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The brave new world of capability – VALUE

SERVICE

Benefits

Application of specialized competences through deeds, processes, and performances to benefit another, whether directly, or through a tangible good
Vargo & Lusch (2004, 2008)

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Outcome-based Contracts

Outcome-based Contracts

Some simple analogies

- English lessons, holes in the wall

More complex OBC

- Rolls Royce Power by the hour ©, Availability of equipment, Popularity of a fiction collection in a library,

Sophistication of contracts & service capability (for MRO context)

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Increasing value co-creation and partnering mechanisms & increasing complexity and risk

Capability-based Contracts (delivers benefits)

“Availability”-based Contracts (delivers availability for use)

Multi-Attribute-based Prime Contracts (delivers bundled attributes i.e. ‘activities’)

Attribute-based contracts (delivers an activity)

Resource contracts (delivers resources)

Increasing price efficiency for customer

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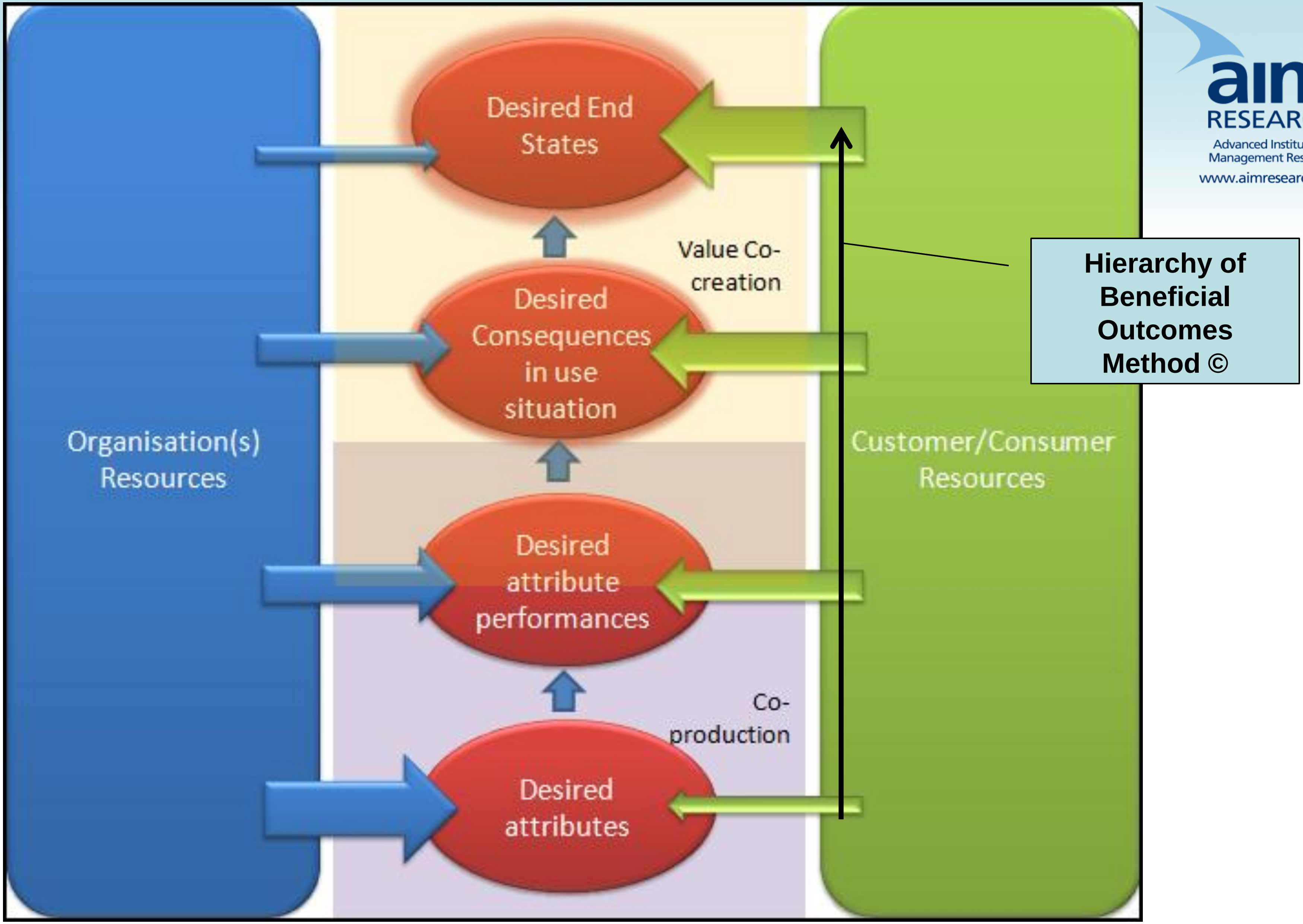
Desired End States
Value Co-creation
Desired Consequences in use situation
Organisation(s) Resources
Customer/Consumer Resources
Desired attribute performances
Co-production
Desired attributes
Hierarchy of Beneficial Outcomes Method ©

S4T: Support Service Solutions: Strategy & Transition

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37 researchers, 10 universities (£2m)

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Outcome-based contracts

Has a huge impact on sustainability (engines fly longer, washing machine last longer)

Shifts the focus from manufacturing/production to complex service systems – human, processes, assets – to achieve to outcomes

Important focus for the economy (UK) that has lost a lot of jobs to manufacturing

Shifts the boundaries of *service*

Shifts the skills sets and capability of the firm – risks

Joint system capability of customer and firm – rather than drawing a boundary and sub-optimizing

Better re-configuration of resources and substitutability of resources

Major impact on human skills of the future: systems thinking, what we try to achieve

Publications

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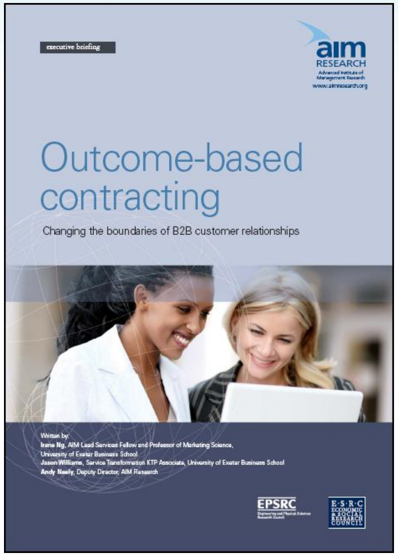

Ng, Irene C.L., R.S. Maull and Laura Smith (2010) Embedding the New Discipline of Service Science" in The Science of Service Systems. Demirkan, Spohrer, and Krishna (Eds.) Service Science: Research and Innovations (SSRI) in the Service Economy. Springer

Irene C.L., Jason Williams and Andy Neely (2009) Outcome-based Contracting: Changing the boundaries of B2B customer relationships, AIM Executive Briefing Series

Ng, Irene C.L., Sai Nudurupati and Paul Tasker, “Value co-creation in the Delivery of Outcome-based Contracts for Business-to-Business Service,” under review at the *Journal of Academy of Marketing Science*

Ng, Irene C.L. and Sai Nudurupati, “Mitigating the Challenges of Outcome-based Contracts in B2B Service Delivery - A Case Study in Defence Industry,” under review at *Journal of Service Management*

Ng, Irene C.L. and X. Ding, “Outcome-based Contract Performance and Value Co-production in B2B Maintenance and Repair Service,” under review at *Management Science*

Ng, Irene C.L., Glenn Parry, Peter Wild, Duncan Macfarlane and Paul Tasker, (2010), *Complex Engineering Service Systems: Concepts & Research, forthcoming in Jun 2010, Springer*

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Grand Challenge in Service

Background

Events

- Doctoral Symposium on Service
- Exploring the service transformation journey workshop
- Grand Challenge Summit Meeting
- Roundtable and Town Hall meeting on Service research
- The forum on markets and marketing (FMM 2010)
- Research poster display

Which should I attend?
Location & accommodation
Booking
Featured speakers
Organisers
Sponsorship opportunities
Institute for Manufacturing

Contact
For further information please email, phone or write to Nick Mann, at the address below:

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Fax: +44 (0)1223 464217
Email: nm402@cam.ac.uk

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21 - 26 September 2010

A week of events bringing together leading academics, industrialists, policy makers to address the evolving challenges facing service education, research, practice and policy.

The service sector now accounts for 75 percent of the labour force in the US and the UK and more than 50 percent in Brazil, Russia, Japan and Germany. The dramatic growth of the service sector is changing the nature of organisations. However, it is becoming apparent that there is a lack of research and knowledge in the area of service to help address the challenges these changes are bringing about.

The Grand Challenge Week will explore issues underpinning knowledge production and transfer in service, evolving the conversations that started with the joint IBM/IfM white paper outlining the future of service science in 2007 . The week of events will offer a unique opportunity for practitioners and researchers to explore the latest thinking in service.

Aspects covered will include service-dominant logic, value co-creation, value-in-use, complex engineering service systems, service design and service systems. The programme will draw on current research conducted at the Advanced Institute of Management Research (AIM).

Diary of the week 21-26 September 2010

Day	Event
Tuesday 21 September	Doctoral Symposium on Service
Wednesday 22 September	Exploring the service transformation journey workshop
	Grand Challenge Summit Meeting
Thursday 23 September	Roundtable and Town Hall meeting on Service research
Thursday 23 - Sunday 26 September	The forum on markets and marketing (FMM 2010): Extending service-dominant logic
Wednesday & Thursday 22 & 23 September	KT-Box poster session (see Exploring the service transformation journey workshop and Grand challenge summit)
All week	Research poster display

Which should I attend?

Sponsors

Thank you

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Service Innovation and Performance in UK Manufacturing

Bruce Tether & Elif Bascavusoglu-Moreau

AIM event for Social Science Week
Woburn House, London, 17th March, 2010

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Motivation and Background

Goods are tradable at distance.

UK based manufacturers face increasing competition on price <u>and</u> quality from lower cost countries like China

Meanwhile, large installed base of equipment requires servicing, repair, etc.

Provides business to third party service firms

Manufacturers urged to servitise – provides revenue and moves company closer to its customers
(Rolls Royce as exemplar – over ½ revenues from services)

Our Study …

Looks at investment in innovation and performance impacts

Three Steps:

1. (Simultaneous) Decision to Invest (in innovation)
    - In knowledge (R&D)
    - In people (training)
    - In capital (equipment)
2. Innovation outputs
    - Goods, Services, Processes
3. Impact on performance
    - Innovative sales, total sales, value added

Data

UK ’Community Innovation Surveys’ (CIS) 4 and 5

CIS4 (2002 - 04): 4,923 Manufacturing enterprises

CIS5 (2004 – 06): 4,664 Manufacturing enterprises

2,272 enterprises in both surveys

Pooled sample of 7315 (i.e., 4923 + 4664 – 2272)

	CIS4	CIS5	Pooled
Goods Innovation	37%	34%	35%
Service Innovation	15%	14%	15%
Process Innovation	28%	24%	26%

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All Combinations of Goods, Service & Process Innovation ...

	CIS4 & CIS 5 Pooled (N)	CIS4 & CIS 5 Pooled (%)
None of these	3976	54%
Goods Only	972	13%
Service Only	117	2%
Process Only	497	7%
Goods & Service	318	4%
Goods & Process	816	11%
Process & Service	121	2%
All three types	518	7%

Some findings …

Different Innovation Outputs draw on different investments

e.g. Investments in Knowledge + for Goods

Investments in Equipment + for Process

Investments in People + for all three types

Performance relates to different Innovation activities ....

Innovative Sales per Employee

Goods and Services = greatest impact, followed by Goods only

Service only and Service and Process = low and neg. impact

Total Sales per Employee & VA per Emp.

Indicate Goods only is the strongest strategy

What does it mean for business and policy?

For Business

Service innovation is worth taking seriously

... but, needs a different investments (approach & possiblyculture)

Best done in combination with goods &/or process innovation

... i.e., don't neglect goods and processes to focus on services

Indeed, it imay be better to retain focus on (high quality) goods

For Policy

'Servitization' is no panacea for UK manufacturing

Continue to emphasise high quality goods manufacturing.

Complement this with innovation policy emphasis on management and 'soft' capabilities – e.g., relational capabilities

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Next Steps

Business Structures Database ...

- Office for National Statistics dataset
- Combines 'local units' into Enterprises
- Some enterprises have multiple local units,
  - Some in both manufacturing and services
- Will look at patterns of diversification & performance (i.e. growth)

Survey of Firms ...

- Direct survey of firms re engagement in servitization
  - & open innovation
- Looking for help with piloting / testing – Please help if you can!

Business Model Innovation

Dr Martin Spring (AIM Services Fellow)
Lancaster University Management School

with
Dr Katy Mason (AIM Management Practice Fellow)
Lancaster University Management School
m.spring@lancaster.ac.uk
k.j.mason@lancaster.ac.uk

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Business Models

- **Business model**- simply, a way to turn capabilities into money
- Redesigning the **offering** – the combination of product and service elements – is central to Business Model innovation
- This has to be linked to the means for **making transactions** possible: what constitutes **value**, and how the offering is **priced and paid for**
- Particularly in B2B markets, business models may have to be adapted to **align** with each customer's own business model.

In short, this presentation will suggest how to make the mechanics of servitization work.

Haloid/Xerox and the 914 Photocopier (1959)

‘…sometimes we must work particularly hard to find the “architecture of the revenues”…Here at Xerox, there has been a growing appreciation for the struggle to create a value proposition for our research output, and for the fact that this struggle is as valuable as inventing the technology its

(John Seely Brown, Xerox)

Technology

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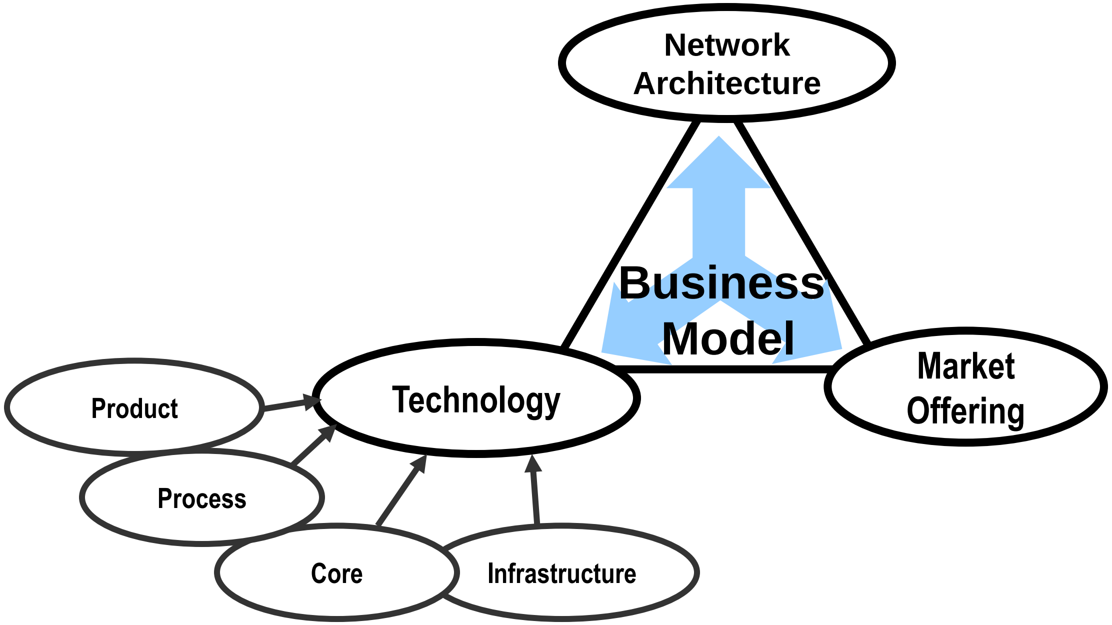

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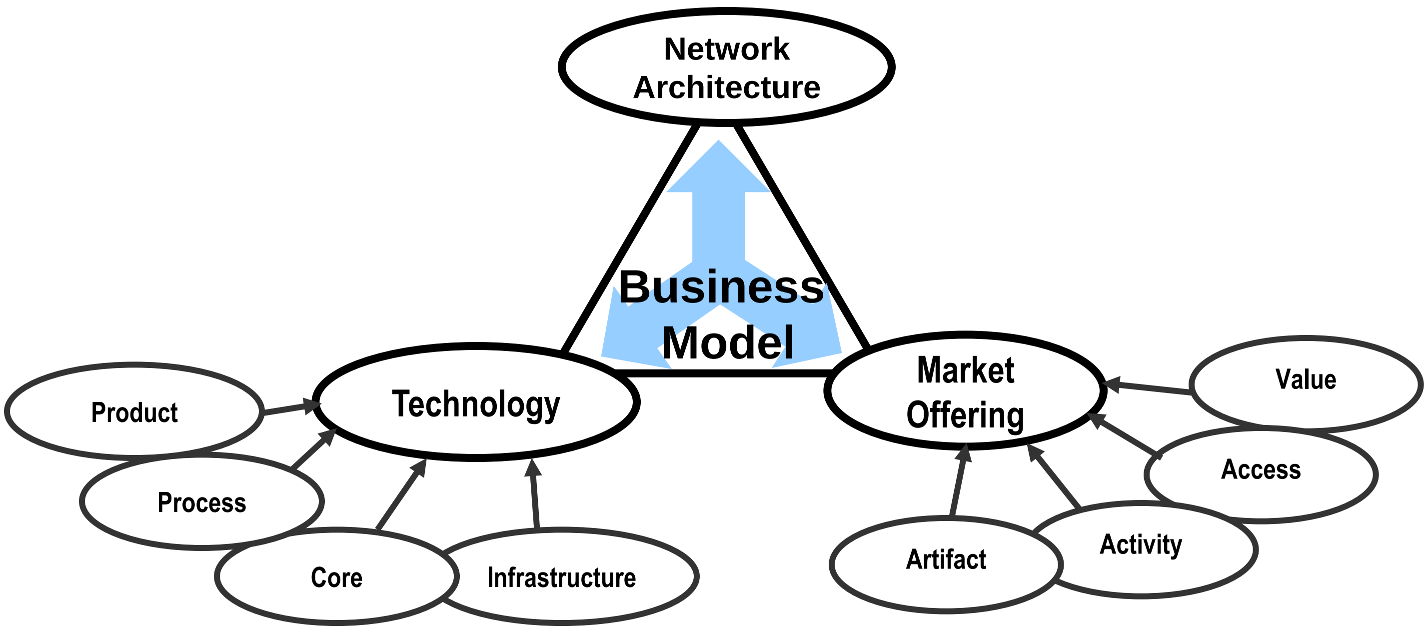
Market Offering



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"I haven't the slightest idea who he is. He came bundled with the software."

Network Architecture

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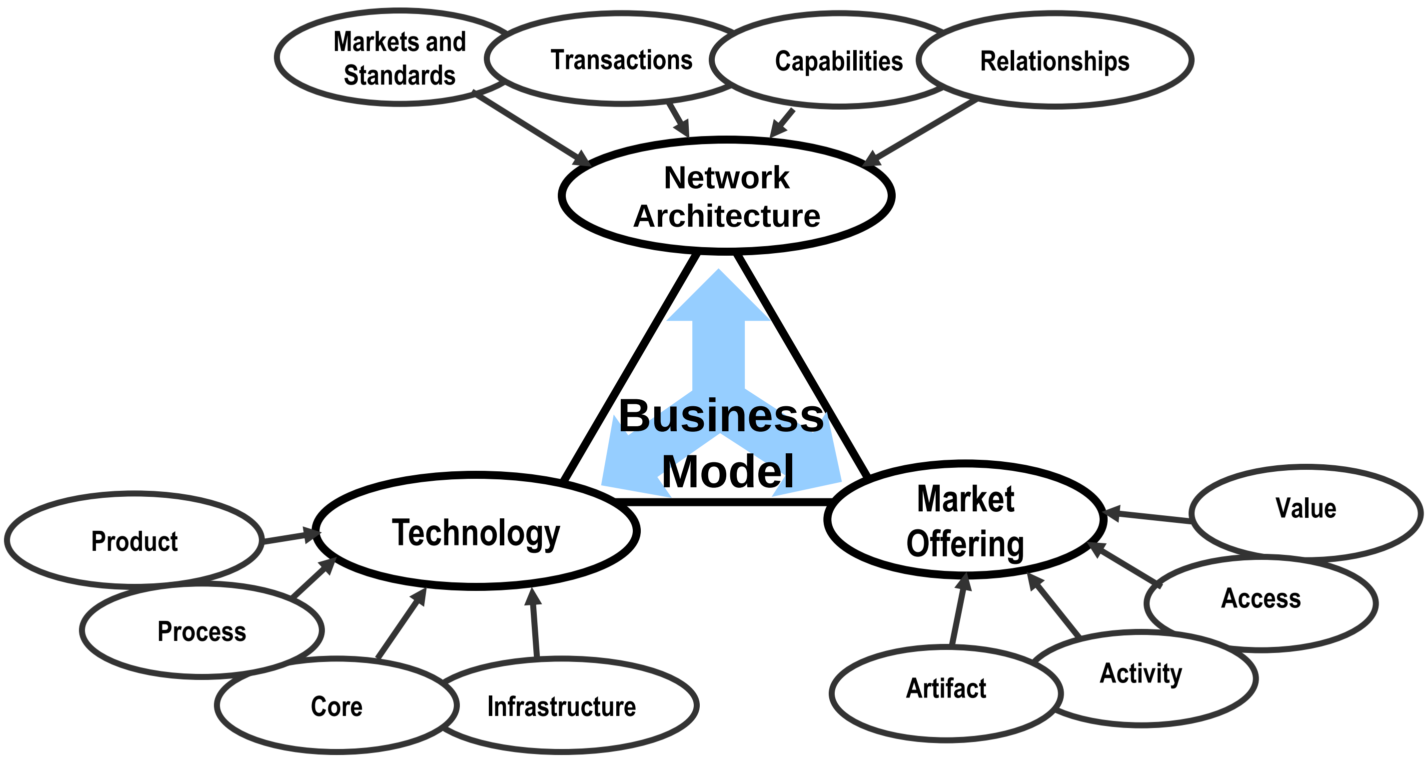

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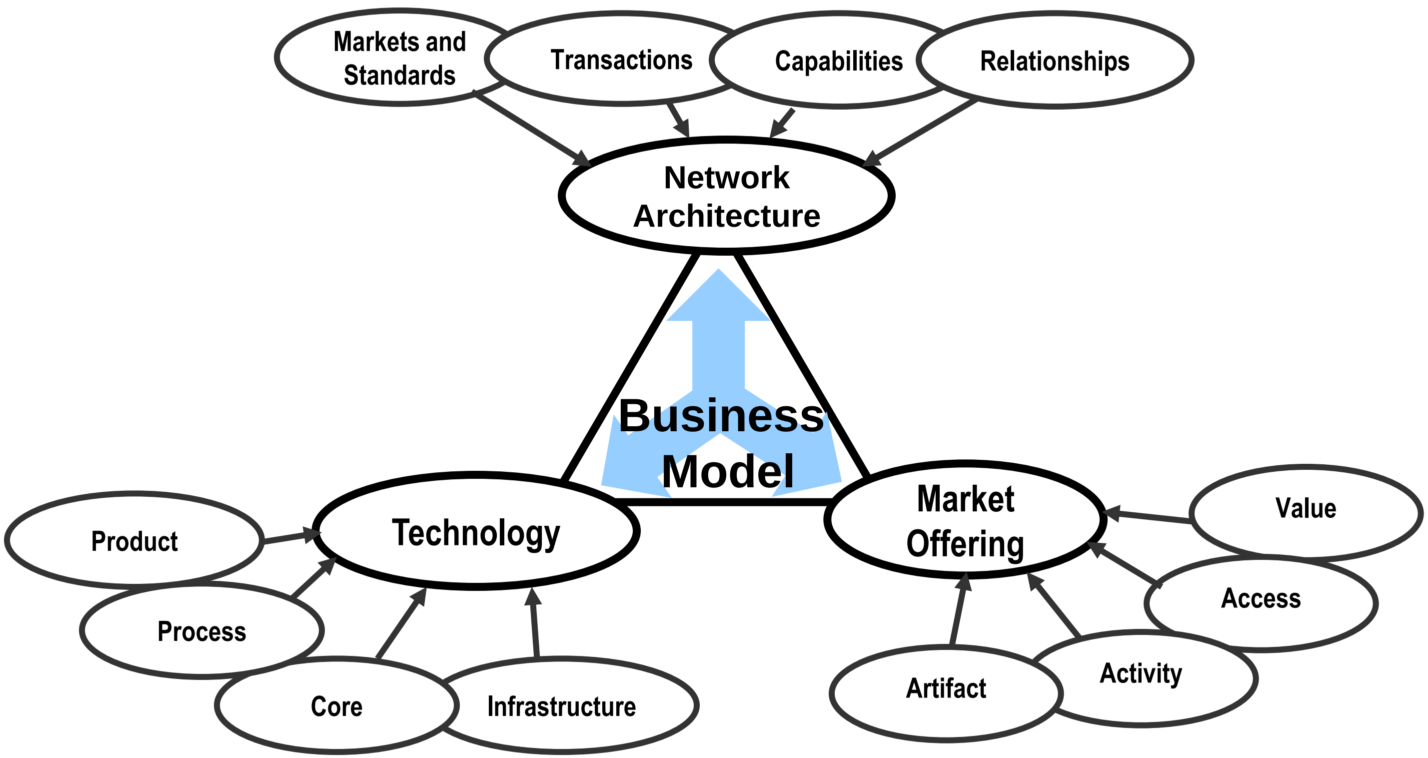
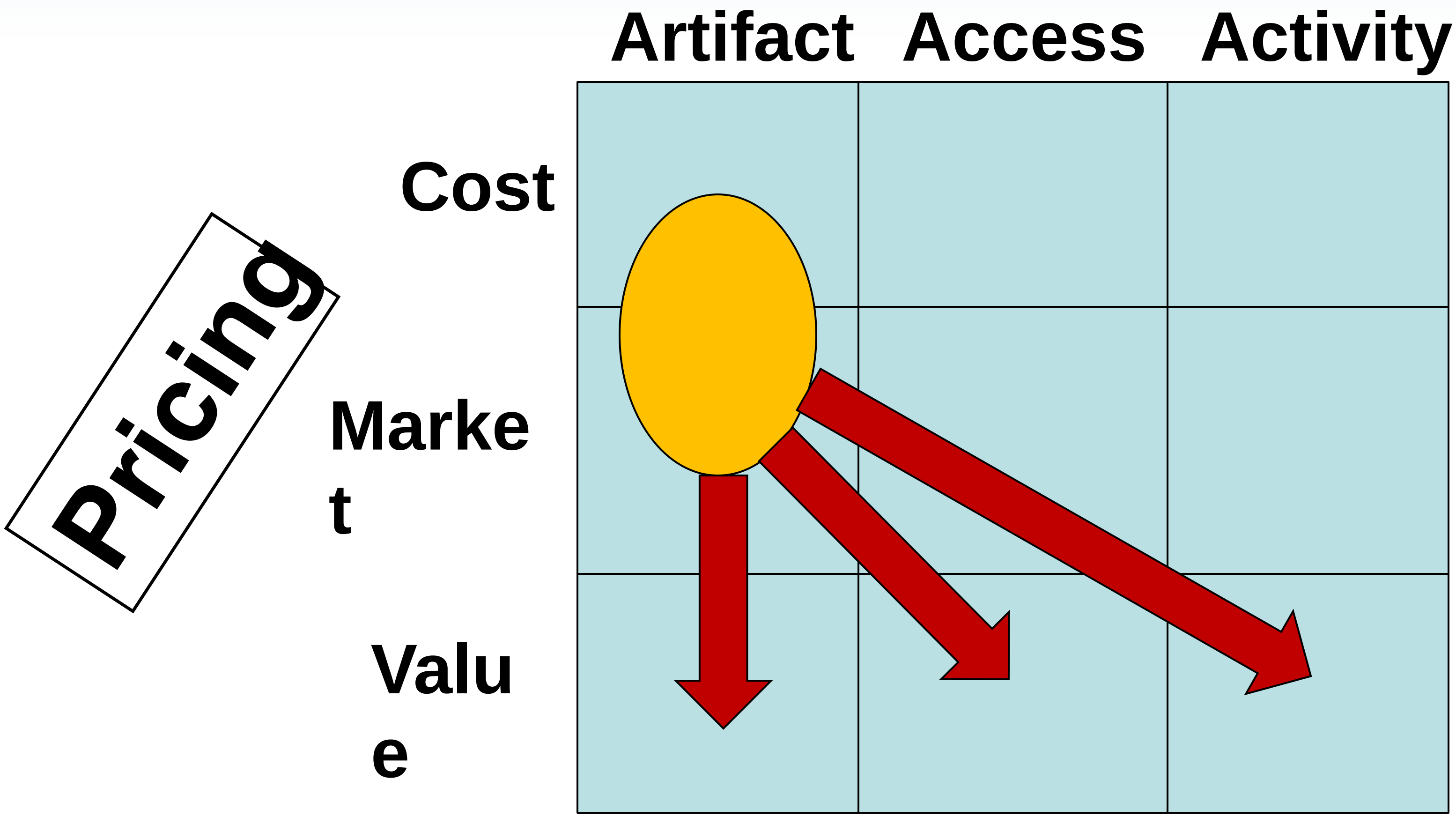

Markets and Standards
Transactions
Capabilities
Relationships
Network Architecture
Business Model
Technology
Market Offering
Product
Process
Core
Infrastructure
Value
Access
Activity
Artifact

Market Offering



What it Means To You

1. Identify, recognise, formalise, perhaps embody the management of offerings – they are the link between capabilities and money. Don't rush to pricing models.
2. Seek out sticky knowledge
3. Invest in developing or accessing technologies for making transactions
4. Interactively align business models with major customers
5. New issues of risk....

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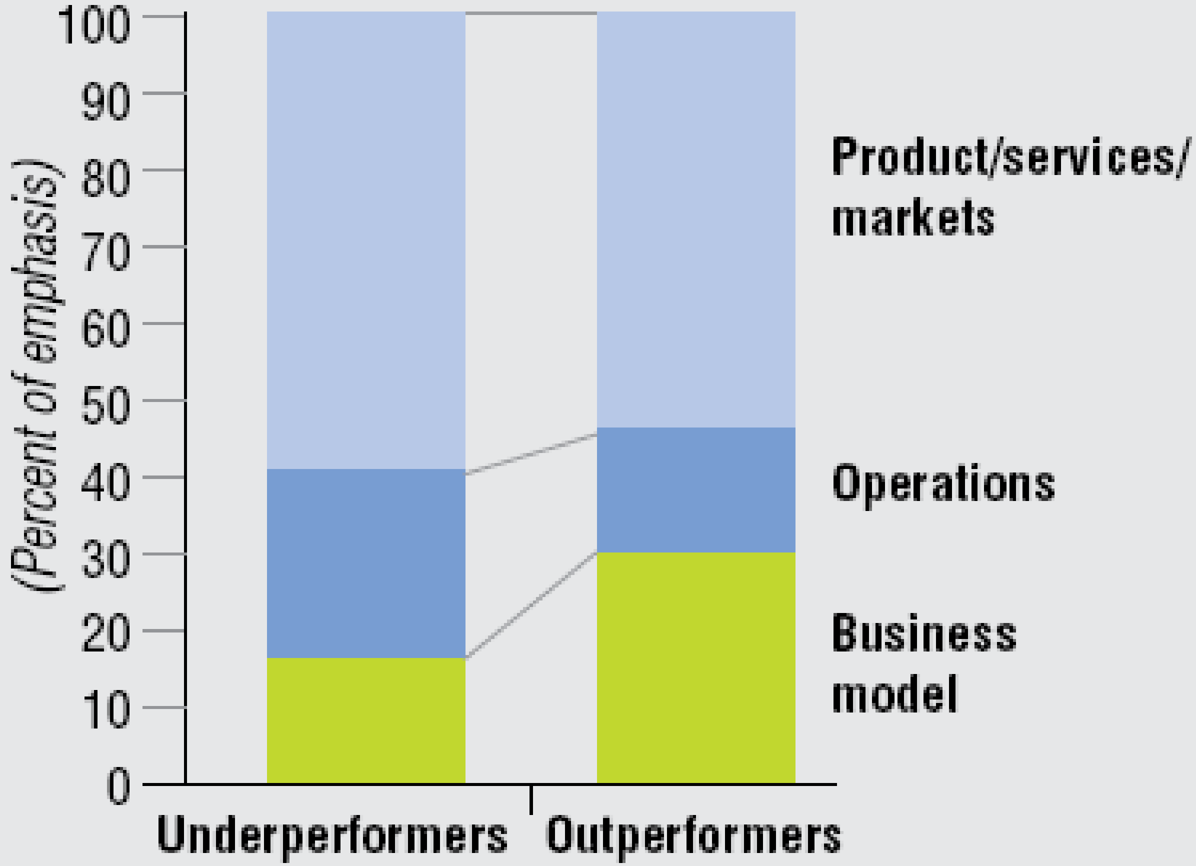
FIGURE 1.

Profit outperformers focus on business model innovation more frequently than underperformers.



Note: Based on operating margin growth over five years as compared to competitive peers.

Source: "Expanding the Innovation Horizon: The Global CEO Study 2006," IBM Global Business Services. March 2006.