New business through service innovation

iarigai Helsinki 2015

Dr Marja Toivonen, Research Professor
VTT Technical Research Centre of Finland
Thirty years of service research: some milestones

- Service economy (Gerschuny & Miles 1983)
- Service marketing (Grönroos 1982)
- Producer services, later called KIBS (Wood 1986)
- ‘Servitization’ of manufacturing (Vandermerwe and Rada 1988)
- ICT and services (Barras 1986)
- Service innovation (Galloj & Weinstein 1997)
- New Service Development (Edvardsson 1997)
- Service engineering (Fähnrich 1999)
- Internationalization of services (Bryson & Daniels 1998)
- Service-Dominant Logic (Vargo & Lusch 2004)
- Service design (Saco & Goncalves 2008)
- Consumer experience (Caru & Cova 2007)
- Solution services (Davies & Brady 2000)
- Services productivity (Djellal & Gallouj 2008)
- Social innovations (Harrison et al. 2010)
- Encounter-based innovation (Sörensen et al. 2013)
- Practice theories (Russo-Spena & Mele 2012)
- Business models (Nenonen & Storbacka 2010)
- Digitalization and services (Jung et al. 2014)
Advancement of service innovation research

1) Service innovation as a change in offerings – making the immaterial changes visible

2) Service ‘mindset’ – a promoter of innovation irrespective of the nature of offering

3) Growing need for systemic innovations
Service innovation as a change in offerings – making the immaterial changes visible
Modelling as a way to make service innovations visible

- There are two main schools in service innovation research: the marketing school and the actual ‘innovation school’ rooted in general innovation studies (within the evolutionary economics and sociology in the first place).

- Both schools have started the research into service innovation by modelling a service in order to recognize innovative changes in an offering whose basic nature is immaterial.

- Both schools highlight that innovative outcomes can emerge in many ways in services: as an improvement or recombination of existing elements or as an addition of new elements.

- A well-known model is on the division ‘concept-process-resources’.
Modelling a service offering

the perspective of the customer and actual service provision

UNIQUE OUTCOME PERCEIVED BY THE CUSTOMER

UNIQUE PROCESS WHERE THE CUSTOMER PARTICIPATES

PREREQUISITES

SERVICE CONCEPT
Analysis of the customer’s needs and the ways in which they are met; the content and structure of the service

SERVICE RESOURCES
Staff, physical/technical environment, organizational structure; customers as a resource

SERVICE PROCESS
Prototype of customer processes, describes the chain of activities

the perspective of the service provider and service innovation

Source: Edvardsson, 1997
Service ‘mindset’ – a promoter of innovation irrespective of the nature of offering
The perspective of value co-creation

- The traditional manufacturing paradigm has considered value in terms of value-in-exchange and neglected its interaction with the value-in-use.

- The so-called service(-dominant) logic (Vargo and Lusch, 2004; Grönroos, 2010) suggests that even more important than innovations in individual services is to develop ‘service mindset’ that appreciates customers and users as co-creators of value.

- The central argument of this view is that value is not inherent in goods or services but becomes realized only when goods or services are used. In the use context, the customer adds value to an individual good or service acquired from one provider by linking it to other resources acquired from other sources.

- This view enables innovation in business models. Instead of a chain from production to distribution, a business model describes collaboration with customers and partners, and the development of the provider’s own resources on that basis.
What is different compared to the traditional model

1) Use value is understood as co-created with customers. It cannot be first produced and then sold. Correspondingly, customers are not targets but resources.

2) The focus in the production of goods or services is on assisting customers to benefit from these goods or services (facilitating their value creation process).

3) Customers are not related to as isolated entities but their needs and wants are analyzed as deeply rooted in the context of their own networks.

4) Instead of focusing one-sidedly on the resources that a firm has, the way of using resources is highlighted.

5) Effectiveness is seen as an important prerequisite for the scale efficiency.
New stage of digitalization as a service issue

- Machine-to-machine communication and the multiplying masses of data (Big Data) are the essential characteristic of the ongoing stage of digitalization.

- The focus is no more on the development of the ICT sector, but on the change in overall way of communicating. A crucial issue is the smartness in connecting actors and data in factories, traffic, buildings etc.

- The new stage of digitalization makes service ‘mind set’ as an essential part of the business and economic infrastructure.
Sharing the value – an issue of trust

- Besides the clients, the emerging values have to be analyzed from the perspective of other stakeholders: suppliers, partners, investors/shareholders, employees, and society at a broader scale.

- It is important to be aware of the possibility of contradictory end results: the value created for one stakeholder group may mean destroying or neglecting the value of the other.

- Finding a balance in the multi-perspective framework is essential and trust is its essential prerequisite. An issue emerges: at which level can the trust be built and how?

Palomäki et al. (2014), modified from Bocken et al., 2013; Evans et al., 2013
Growing need for systemic innovations
From individual products and services to systemic solutions

- Many social, economic, and environmental challenges are too big to be solved via individual product and service innovations created in individual organizations.

- A crucial question is how to combine various innovations effectively and disseminate them rapidly on the basis of continuous interaction of different organizations.

- Examining and developing innovations at the systemic level has come to the fore. Examples of important service systems are healthcare systems, traffic systems (and broader city innovations), and energy systems.
Systemic innovations

- In systemic innovations, the novelty also includes – not only a new outcome – but also new ways to interact with other stakeholders.

- A system innovation is based on the simultaneous development of organizations, technologies, services, and multiple network and partner relationships.

- Systemic problems cannot be identified directly. They manifest themselves in various practical problems that have to be analysed in order to understand the underlying dynamic complexities. Interaction between conceptual and practical levels is required.
# Solving Systemic Problems

<table>
<thead>
<tr>
<th>Level of Focus</th>
<th>Problems</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invisible system activity</td>
<td>Developmental process to identify system contradictions</td>
<td>Designing new forms of the activity (e.g. new rules, new tools)</td>
</tr>
<tr>
<td>Visible individual actions, events</td>
<td>Identifying the obvious problem</td>
<td>Implementing the obvious (or new) solution</td>
</tr>
</tbody>
</table>

**Source:** Adapted from Seppänen (2000); Botha *et al.* (2002)
Dynamic complexities due to the nature of systems as:

- **tightly coupled and governed by feedback**: decisions of the actors trigger others to act, which again alters the next decisions of the original actors.

- **non-linear and history-dependent**: effect is rarely proportional to cause and taking one path precludes many others.

- **constantly changing and self-organizing**: small, random perturbations are often amplified by feedback.

- **adaptive**: capabilities of actors change over time as a result of learning.

- **counter-intuitive**: cause and effect are often distant in space and time.

- **policy-resistant**: the complexity makes it difficult to understand the system and as a result many seemingly obvious solutions to problems fail.

Source: Sterman, 2001
A summarizing view: the perspective of socio-technical transition

Landscape: societal problems and technological advance

Regime: current ways to solve problems (laws, practices)

‘Niches’: innovations e.g. at the regional level

Landscape developments put pressure on regime, which opens up opportunity for novelties

Regime is ‘dynamically stable’: on different dimensions there are ongoing processes.

New regime influences landscape

New configuration breaks through, adjustments occur in the regime.

Novelties emerge on multiple dimensions (technology, user preferences, policies) and are gradually linked together.

Source: Geels & Schot 2007
Thank you!