Part IV
Designing Service Innovation

Systemic Development of Service Innovation

New values are being created and shaped through a rapid transformation in the service economy. Now more than ever service businesses need new tools, approaches, interdisciplinary thinking and creative methods.

Highlight *David Edwards (2008) developed a special artscience concept to cover collaboration of artists and scientists in solving design problems. Underpinned by this artscience concept, the authors explore the intrinsic characteristics of services and service systems, and present a systemic approach to produce service innovations.*

The Role of Socio-Technical Experiments in Introducing Sustainable Product-Service System Innovations

With resources rapidly diminishing in our resources finite world, a concept that theoretically and practically represents a promising model to steer our production and consumption systems towards sustainability is the *Product-Service System (PSS)* one. PSSs shifts the business focus from selling products to offering a combination of products and services jointly capable to achieve a final user satisfaction in a sustainable way.

Highlight *An example might be useful to better understand the PSS concept: the Pay-per-Use solution, a PSS developed by Ariston (an Italian appliances producer). Here, rather than selling a washing machine, Ariston offers to clients the possibility to have clean cloths without owning the product. The payment is based on number of washes and includes the delivery of a washing machine at home, electricity supply (not directly paid by the customer), maintenance, and end-of-life collection.*

Servitization as Innovation in Manufacturing—A Review of the Literature

Servitization means all service concepts, systems service, processes and related service activities offered and carried out by, or on behalf of, a manufacturing firm linked to the products produced by this firm. In the 21st century, this means that servitization has become an integral part of manufacturing.

Highlight *By combining product and service offerings and sometimes newly developed service offerings a complete offering can be provided. An example of this is Volvo Trucks Fuelwatch, made up of six different services packaged and sold as one concept with the aim of reducing the customer's fuel consumption and associated costs.*

The Architecture of Service Innovation

The role of architecture shifts from being the locus and enabler of services and innovation to also being the diagram and visualization of service experience (reflecting Mies van der Rohe's "will of the age conceived in spatial terms"). The goal is to understand the relationships between the qualities of architecture and service design and allow one field to inform the other (here "qualities" is defined as the underlying intentions and meanings of outward forms).

Highlight *Sometimes we need to turn to the greatest designers from the past. The Parthenon, the most refined Greek temple, appears to be a very regular form of repetitive standardized components. Upon closer inspection, nothing about this structure is regular. What appears to the viewer as straight and parallel lines are in actuality all curves. What the viewer first sees as standardized components and equal spacing between the columns are all slightly different. They are modulated for effect. The Parthenon is a highly complex design of optical refinement to create the most pleasing view for the observer.*

Innovation or Resuscitation? A Review of Design Integration Programs in Australia

Design integration programs aim to increase the competitiveness of business through the application of design services and design thinking within the business model. Typically design integration programs provide auditing, mentoring and business modelling with selected companies to plan and implement strategies to utilize professional design services and apply design thinking methods to develop new products, services or processes.

Highlight *Preliminary research undertaken by (Bucolo and Matthews 2011) indicated that there was opportunity for further study into the selection process for company participation in design integration programs. A study of the 2008 Business Review Weekly list of "Fast Starter" companies determined that the highest proportion of fast growth start-up companies was in the business and property service sector and that the largest group of start-ups had a net company worth of less than $AU1m. The study identified that fast starter founders acknowledge the value design '...brings to customers and their enterprises, culminating in a sustainable competitive advantage' (Smyrnios 2008).*

Service Innovation Through an Integrative Design Framework

Service innovation is focused on customer value creation. At its core, customer-centric service innovation in an increasingly digital world is technology-enabled, human-centred, and process-oriented. Service innovation requires a cross-disciplinary, holistic, and end-to-end approach to new service design and development (NSD).

Highlight *In an increasingly digital world, information technologies are "liquefying" physical assets into information resources, and transform a service firm into a value-creating service system in which a constellation of economic actors (customers, suppliers, business partners and the like) are able to seamlessly collaborate to co-create value (Normann and Ramirez 1993).*

Services Innovation in a Circular Economy

This paper reviews the literature around service innovation in a circular economy. Circular Economy is a generic term for an industrial economy that is, by design or intention, restorative and in which material flows are of two types, biological nutrients, designed to re-enter the biosphere safely, and technical nutrients, which are designed to circulate at high quality without entering the biosphere (Wikipedia 2014a).

Highlight *The paper identifies the necessity to have an appropriate business model framework for firms engaging in service innovation and delivery within a circular economy framework. It identifies some relevant frameworks and points out some weaknesses in existing frameworks. The paper also explores service innovation in the circular value chain as a growing domain of activity but with many unanswered questions, which indeed is a growing area for future research.*