

# Introduction to Service Innovation

Ian Miles

**Abstract** This essay discusses how service innovation has moved from being a topic attracting little interest, to one that is increasingly focus in innovation studies. While this means taking account of issues that have generally been neglected in innovation analysis, the case is made that we can move to more integrated views of innovation and innovation processes which take into account both common and specific features across sectors and different types of organisation, and across a wider spectrum of innovations than captured in standard classifications such as product versus process. The essay reviews studies discussing varieties of innovation and innovation management across modern economies, and outlines multidimensional approaches to service innovation that should prove useful for further analysis.

## Service Innovation Comes in from the Cold

Until the 1990s, it was rare to find researchers and policymakers taking the topic of service innovation seriously. Innovation was identified with technological innovations, which were mainly seen as flowing from manufacturing industries. Service industries at best adopted these innovations.

By the 1990s, it was clear that service industries were among the most enthusiastic adopters of new Information Technologies (IT), that many of these industries were actually creating quite new services around the use of these technologies, and that new service industries were emerging to develop software, content, designs and many other aspects of IT activities. Alongside the rising share of service activities in industrial societies around the world, this made the neglect of service innovation look increasingly outmoded. The research community responded: Publish or Perish (Harzing 2010; data accessed December 2010) indicates only eight publications in the period 1975–1989 containing “service innovation” in their titles; but this rose to 24 in the 1990–1999 period; and 500 over 2000–2009.

Reviews of this emerging literature note that some rather typical approaches recur. Reviews by Gallouj (1998) and Coombs and Miles (2000) each classified three

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I. Miles (✉)

Manchester Institute of Innovation Research, Manchester Business School,  
Harold Hankins Building, Oxford Road, Manchester M13 9PL, UK  
e-mail: ian.miles@mbs.ac.uk

approaches to service innovation, and these classifications have been adopted by several subsequent scholars. Droege et al. (2009) suggest that there are actually four distinct approaches being discussed (Table 1). Most authors who have made use of such comparisons end up arguing that a synthesis approach is optimal, both in that it will allow for better capture of important phenomena in modern economies which the other approaches might overlook, and because it is more elegant to have a single approach than to have incommensurable analyses of what are often at least superficially similar processes. It also makes it easier to argue for integrated training, policies, and the like. Nevertheless, the diversity of service activities, which we discuss at more length below, has led some researchers to argue that we need to embrace the variety of forms of innovation and innovation management that are emerging. Thus Howells (2010) sees a “segmentalist” approach to innovation in services as emerging, moving away from analysing services as a whole. Even a casual encounter with the literature on services is likely to reveal that for every generalisation that can be made about these activities, there will be numerous exceptions. Should we expect innovations in cinemas, hotels, surgeries, software maintenance, logistics, and management consultancies to have that much in common, and to be generated and managed in the same ways?

This essay will review literature exploring what we mean by service innovation, what might be its notable characteristics and varieties, and what is known about the methods and processes of innovation management and new service design and development.

## **The Ambiguities of Service—and Service Innovation**

“Service” and “services” have been contested concepts, with much scope for misunderstanding. Are we talking about particular products (services as intangible goods), about particular industries (those whose main output is such service products), about particular types of social or market interaction (service relationships, customer service, etc.)? To further complicate matters, economists may talk about “product services” (value supplied by industrial equipment, for example), informatics developers about service-oriented architecture (the orchestration of services supplied by software) and environmentalists about ecosystem services (nature providing us with air and water, for example). We shall draw a veil over the servicing of livestock in farming.

### ***The Service Relationship: Interactivity***

One approach that has gained much influence in recent years is that of “service-dominant logic” (see, for example, Lusch et al. 2008; Vargo and Lusch 2006). Service marketing scholars and practitioners had found that service marketing could not rely on the methods used for marketing goods. *Service* is seen as a process and relationship, rather than just as an “intangible good”. It is a *co-production* process in

**Table 1** Four approaches to service innovation analysis. (Source: Categories from Droege et al. 2009, text by author)

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<i>Name of approach: Assimilation</i> (Coombs and Miles 2000)	
Main characteristics	Most economic attributes of services are seen as fundamentally similar to those found in manufacturing, and where there are differences these tend to be shades of the same colours, not qualitatively different ones. Thus, theories and concepts developed in manufacturing contexts readily apply to innovation in services, and statistical measures can be simply transferred to services. Differences will often imply simply that services are lagging behind other sectors
Comments	Such an approach is apparent in many of the earlier statistical studies of innovation in services that deployed the data produced in the Community Innovation Surveys (CIS). A similar viewpoint is advocated in many mainstream accounts of topics such as trade and productivity, which assume that existing instruments will work effectively to describe the service economy
 <i>Name of approach: Technologist</i> (Gallouj 1998)	
Main characteristics	Focus on new technologies (especially IT) as the critical form of innovation in services. Research and analysis using this framework tends to draw on ideas of innovation based on studies of manufacturing, but may stress distinctive features of services' technological innovation
Comments	Gallouj and Savona (2010) identify the technologist approach with the assimilation approach (above). Droege et al. (2009) consider the two approaches to be distinctive. The emphasis on technology may resemble that of many assimilationists, but some authors have stressed technological innovation, while arguing that the trajectory of service innovation is distinctive. For example, Barras (1986, 1990) account of the "reverse product cycle" portrays service organisations as following a distinctive trajectory of technology-based innovation, beginning with use of new technology to render production of services more efficient, and culminating in the creation of new services. This is the mirror image of the standard product cycle account for manufacturing
 <i>Name of approach: Demarcation</i> (Coombs and Miles 2000; Gallouj 1998)	
Main characteristics	Services activities are highly distinctive. They may still be poorly understood, but what is clear is that in many respects their dynamics and features require novel theories and instruments. It suggests at one extreme that quite new instruments are required for investigation of services activities, or that the results of established instruments need to be interpreted in new ways. For instance, since services conduct little R&D (on the whole), R&D-intensity is a poor indicator for identifying "high-tech" or "knowledge-intensive" services, and new approaches are required (e.g. skill profiles of the workforce); since much services internationalisation takes the form of investment, franchising and partnerships rather than conventional exports, the analysis of services "trade" has to pay more attention to such modes of presence. The distinctive features of services include intangible and un-storable products, and high degrees of interaction with customers (up to the point where consumers are often seen as "co-producing" services). Such features do not only mean that service industries lag behind in terms of innovation, but also that their types of innovation and innovation management processes are very different from those seen in manufacturing

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**Table 1** (Continued)

Comments	This approach is displayed in many case studies of services activities, often by researchers who come more from a service research tradition than from an innovation studies one. A case for demarcation is also made in much of the service marketing literature, and some “new service development” studies; some studies of productivity analysis also point to particular problems in assessing service productivity in conventional terms (e.g. Gadrey 2002; Grönroos and Ojasalo 2004)
<i>Name of approach: Synthesis</i> (Coombs and Miles 2000; Gallouj 1998)	
Main characteristics	There are continuities but also discontinuities between analyses of manufacturing and services innovation. The latter have highlighted issues that require examination—but at least some of these are features of innovation that are present in many manufacturing firms, but that have been neglected in most accounts of manufacturing innovation. A more comprehensive analysis, with more adequate indicators, is required for enriched understanding of innovation right across the economy. This will help account for variations within and across goods and service innovation, and help address the service activities of manufacturing firms and the goods-producing activities of service organisations
Comments	In many respects there is convergence between manufacturing and service sectors (Miles 1993). Many manufacturing firms more resemble the traditional view of services (for example, producing more customised products, having closer links with consumers, etc.; and at the same time, many services are becoming like traditional manufacturing (standardised and mass production of services by large firms, for example)

fact, where both “supplier” and “client” contribute resources to create and achieve benefits. All economic activity can be seen in this perspective as an exchange of services, and the service-dominant logic (rather like the “synthesis” approach mentioned above) proposes that the new framework for marketing and other analysis should apply to all sectors. The emphasis is on service (the co-production relationship) rather than on services (which we might consider to be the benefits that are supplied to the users). This approach might prompt us to look at service innovation in terms of changes in the resources the partners bring to, changes in the benefits they receive from, and changes in the way they act and interact in, the co-production relationship.

A more “demarcationist” approach to services also focuses on the service relationship and the associated process of “servuction” (contrasted to industrial production). This proved influential in particular in francophone research into services (e.g. Eiglier and Langeard 1987) but informed few innovation studies (a notable case being Belleflamme et al. 1986). Nevertheless, there is wide acceptance of the idea that the service relationship is a critical feature of service activities, and that these are often (at least) characterised by elements of co-production (where the user or customer has to contribute physical presence and quite possibly more active engagement for the service to be delivered). This can be seen to be one of the major defining features of service activities—that they very often require some interaction between supplier and user for the service to be produced. (They are “consumer-intensive”, in the terminology of Gartner and Reissman 1974; they display high “interactivity” according to Miles 2005).

This is of course partly a matter of one's point of view. Is a broadcasting company no longer producing services if nobody is tuning in to its radio or TV station at a particular moment? While many services are produced to demand, there are some that are generated on a routine basis regardless of user presence, though these may be exceptions. From a service-dominant logic perspective there may be no service being created—or perhaps we could consider knowledge of the availability of the broadcast to be the service (that informs choice) co-produced in this case. This is perhaps an extreme example, but it is clear that the amount and type of effort that is put in by the partners varies from service to service. Sometimes the customer/user simply has to be present; sometimes they have to be very much more engaged for the service to be delivered (compare, for example, cinema attendance with having dental treatment, taking a train journey with interacting with a counsellor). Often, the service users are engaged in more activities than just specifying the desired service, purchasing it, and accepting “delivery”. The quality of the user inputs is very important for the quality of the final service. Broadly, then, we can say that service processes are characterised by what is produced through more “interactivity” between supplier and user than is the case for other economic sectors. This is bound to have substantial influences on innovation processes—the relationship and ways in which interactivity is mediated can be important foci for innovation. Service innovation is liable to involve learning and behavioural change on the part of the user as well as the nominal service supplier.

Interaction necessarily involves information exchanges, even when the service also features delivery of a physical product or the transformation of something tangible. Information exchange implies that there is much scope for application of IT—from visual aids to support presentations and teaching, to online services of all kinds, monitoring and sensing systems, and automated equipment for supplying money, selling goods, or cleaning surfaces. Such new technologies have been at the heart of many new and improved services, while IT has also been used in back offices for a wide range of administrative and organisational functions. The “technological” approach is readily understood in consequence of the pervasiveness of new IT. Barras' (1986, 1990) contribution was to see this as a technological revolution in service industries analogous to that which manufacturing went through in the nineteenth century when it was transformed through the use of new power systems. He believed that organisations that previously had not been very technology-intensive would learn about the new ways in which they could accomplish goals through use of these technologies, and set off on trajectories of service innovation based on this use.

Another important development, however, is not always dependent on the use of new IT. Much service innovation centres, on the redistribution of the co-production activities between supplier and client. As widespread phenomenon is the introduction of what are sometimes known as “self-services” (cf. Gershuny and Miles 1983, for early discussion of this trend). The user plays more of a role in service production, for example by taking goods from shelves themselves (they have often have been pre-weighed) rather than asking an attendant to fetch and weigh the goods. This reduces labour costs for the service organisation, but can improve the quality and efficiency of the experience for the customer. Such innovations require creation of a mutually

acceptable framework for identifying and accessing the objects of the service. Of course, IT is often used in support of self-services, with ATMs and online bank accounts replacing counter staff. Finally, we should also note that the behaviour of other users can affect the service experience. Consider the impact of other users of social networking, or public transport services, for example. Value may be provided or destroyed by the interactions of and with other users, and this too can be a focus of innovative effort.

### *From Interactivity to Intangibility*

Interaction is much more of a relationship or process than it is a tangible good or physical artefact, and this is one reason for the characterisation of services as intangible products. (And even the broadcast mentioned above is intangible in this sense, whether or not anyone has tuned in to it!) The benefits for the user may also be highly intangible ones such as knowledge (supplied by industries as diverse as consultancy and education), and emotional experiences. (As generated by the entertainment industries, in particular—but these are present in many more service activities, leading to some discussion of the need for interpersonal skills and emotional labour in industries as diverse as hospitals and restaurants). Service activities, of course, generally use physical artefacts in the course of production of their benefits; and sometimes they also create tangible changes in the state of people (new dentures and hairstyles) or artefacts (repair and maintenance services). But intangibility is a fairly common characteristic of service activities and many service products, and as such is also likely to affect service innovation and innovation processes. One point that is often remarked is that it is hard to protect service innovations with the IPR arrangements (patents) deployed for innovation in material goods; less well-known is the fact that policy support for innovation may discriminate against service activities (for example, R&D tax credits systems ruling out support for R&D on social; and managerial issues—see Miles 2007). Intangibility also can mean that service products are difficult to store, transport, or demonstrate (in advance of purchase). One result is that service innovators often seek to address these features, for example finding ways to add tangibility to their services (e.g. loyalty cards), to deliver them to remote customers (e.g. through the Internet), to provide evidence of quality (trials, quality standard accreditation, etc.). This last point accounts for the need for regulation of many services, and the challenge that can confront the service supplier when it comes to convincing consumers about the superiority of innovative services.

It is quite logical to think of *service innovation* as involving the introduction of new or improved services, just as goods innovation will be seen as involving the introduction of new or improved goods. However, the ambiguities of the term mean that as well as the service-dominant logic emphasis on innovation in service (singular!), there is also scope for the term to be employed to refer to innovation in service industries. Here, we will use the formulation *innovation in services* to refer to both product and process innovation in service firms, sectors and industries.

This will include the service innovation that takes place in these industries, but not service innovation that may take place when manufacturing firms, say, introduce new or improved services.

## “Servicisation” and Industrialisation

One of the reasons for promoting a “synthesis” approach to services and manufacturing industry is the phenomenon of “servicisation” (aka “servitisation”) of firms in all sectors (e.g. Avadikyan and Lhuillery 2007; Howells 2001; Neely 2008; Susman et al. 2006). Typically, this involves firms providing services related to the goods or raw materials that they produce, or ones that are related to the production processes they use. In the former case, the new services may be “product services” such as after sales support, or other ways of redefining the product that is sold to include, or even to consist of, services, rather than just be a matter of delivering a material artefact. Sometimes servicisation involves complementing the good with services such as finance, insurance, maintenance, software, etc. Sometimes it involves a shift to a service focus, in which the firm sees its job in terms of providing the outcomes for customers that the good itself would be used to create: the firm can then sell a promised amount of service rather than selling—or even renting—the good. A famous case of this is Rolls-Royce contracting to supply hours of flight time rather than aircraft engines; and the efforts by computer companies to sell cloud computing services rather than computer kit itself can be seen in a similar light. Such servicisation strategies are also liable to influence innovation pathways, beyond innovation in the new or improved service itself (an echo of the service-dominant logic approach can be seen here). Because different costs are internalised and externalised by the partners, the manufacturer will need to pay more attention to the ways in which its goods are consumed—for example, by monitoring usage through new sensors and software—and in turn this might promote new product services in providing customer support and equipment maintenance and disposal.

Manufacturers are becoming more service industry-like in other ways too, for example by adopting “post-Fordist” strategies of “mass customisation” and tailoring products more to customer specifications, by putting more emphasis on interaction and customer service. At the same time, some service industries are becoming more like Fordist manufacturing. Four decades ago Levitt (1976) described the increasing industrialisation of services. Some service firms were expanding rapidly, and often spreading across large countries such as the USA and even becoming significant transnationally—even though they often adopted patterns of internationalisation (such as franchising) that were different from those of manufacturing. Just as Adam Smith described for manufacturing, these firms often set up production lines or similar arrangements with a high division of labour, producing much more standardised products produced en masse, and using larger-scale technology. These Fordist trends are accompanied by some use of strategies of mass customisation, as standardised service modules can be combined in numerous ways. These approaches are used both

by firms producing on a low-skill, low-wage basis (e.g. fast food restaurants) and those preparing much higher value-added services (e.g. some professional and financial services). Products are not necessarily customised in depth, but the quality of the service is fairly predictable for the user, which is not always the case in services. Again, there are many implications for service innovation related to the growing economies of scale and scope, technology-intensity, and division of labour—indeed, the organisations that have successfully industrialised their services are in many ways pioneers of a particular form of innovation.

## Varieties of Service Innovation and Innovation Across Services

The present volume marks a significant contribution to the accumulating body of case studies of service innovation. Much of the wider literature, however, concerns “innovation in services”. Part of the reason for this is that large-scale survey studies are somewhat easier to organise at the firm and industry level than at the level of specific innovations.

Initially, a major role of such survey studies was simply to indicate that, contrary to much received opinion, service forms were quite often innovative. More detailed work soon explicated variations across different types of service industry. In addition to some commonplace results—as in manufacturing, the typical picture is for smaller service firms less often to report having undertaken innovations than larger firms do—patterns began to emerge in terms of the relative incidence of innovation and the forms of innovative effort across different service sectors.

In the most recent version of the standard industrial classification NACE Rev. 2 (NACE = “Nomenclature générale des Activités économiques dans les Communautés Européennes”, cf. Eurostat 2008), the service industries are classified into 13 “sections”, namely:

- G—Wholesale and retail trade; repair of motor vehicles and motorcycles
- H—Transportation and storage
- I—Accommodation and food service activities
- J—Information and communication
- K—Financial and insurance activities
- L—Real estate activities
- M—Professional, scientific and technical activities
- N—Administrative and support service activities
- O—Public administration and defence; compulsory social security
- P—Education
- Q—Human health and social work activities
- R—Arts, entertainment and recreation
- S—Other service activities

This represents far more detail than available previously, and gives a good idea of the range of activities that are counted as services.



There have been many survey studies focusing on services, some of which are allowing us to examine how far variations in features such as standardisation vs. customisation, and high vs. low levels of interaction with clients, affect innovation processes (e.g. Nählinder 2005; Tether et al. 2001). The most extensively used surveys, however, are the Community Innovation Surveys (CIS), undertaken regularly across the EU, and covering a range of private sectors (though areas like retail, entertainment and personal services are often omitted). CIS data allow for comparisons to be made across sectors: while on average the services sectors report lower rates of introducing product or process innovation than do manufacturing firms overall, some service sectors are strikingly innovative. Similarly, the innovation budgets of service firms tend overall to be lower than those of manufacturing firms, even controlling for firms size (important because service sectors generally feature more small firms than manufacturing does), but there are also marked exceptions. Broadly speaking, more physically-oriented services (such as transport and wholesale and retail trade) report lower levels of innovation; more information-oriented services (financial services and Knowledge Intensive Business Services, KIBS, such as computer, engineering and other technical KIBS, and legal, accountancy and other professional KIBS) are much more innovation-intensive. Technology-related KIBS in particular—firms providing computer, and engineering services, for instance, typically have large innovation budgets. An early summary of results for KIBS on a cross-national basis is Tether et al. (2002).

Beyond generalising about sectoral variations, large-scale survey data can be used for cluster analysis and similar approaches for identifying distinctive innovation styles. Thus Hipp and Grupp (2005) differentiated between German service firms in terms of the sorts of knowledge drawn on for innovation. They identified four patterns: the knowledge-intensive, network-intensive, scale-intensive and external innovation-intensive patterns. These were associated with different sectors of service industry, for instance, the knowledge-intensive pattern was particularly common in technical KIBS, the network-based model in banking, the supplier-dominated pattern in other financial services. But Hipp and Grupp showed that though there are in some cases strong trends, all sectors featured several of the patterns.

The survey studies focus on the firm, its innovation expenditure, its sources of information and collaborations, etc. They do not take the innovation itself as a unit of analysis, and are thus rather limited in terms of what they tell us about the types of innovation that are undertaken—we typically just have data on whether this was a goods/service or process innovation, with more recent data providing some information about changed organisational strategies. In relation to this last point, there are a number of studies that indicate that service firms may put more stress on organisational innovation as compared to technological innovation (though there is also evidence that innovators of one sort also tend to adopt the other sort of innovation). Howells and Tether (2004) found a substantial share of services firms claiming that their main innovative activities were *solely* organisational, while it was fairly uncommon for manufacturing firms to do so. Kanerva et al. (2006) report that services firms (especially financial and wholesale sectors) are more prone to initiate organisational

change; Schmidt and Rammer (2006) and Miles (2008) report that manufacturers and IT service sectors feature firms tending to report more technology-based innovations, while most service sectors report more organisational innovation.

## Dimensions of Service Innovation

A provocative approach to understanding service innovation has recently been articulated by Pim den Hertog (for a recent summary of this approach, see den Hertog et al. 2010). He suggests that it is misleading to draw strict boundaries between, for example, technological and organisational innovation, product and process innovation, and the like. In practice, many innovations in service organisations, and many service innovations, involve simultaneous changes along several dimensions. den Hertog proposes that six dimensions can be effectively used to characterise innovation (his essay provides examples of these):

The **service concept** or offering: what is the value that is created by the service provider (or co-produced with the customer)? The innovation may be a new way of solving a customer's problem or meeting a customer's need, perhaps by combining existing service elements in a new configuration.

**New customer interaction** focuses on innovation in the interaction process between the provider and the customer, and thus on the role customers are playing in the creation of value. The client may be an important source of innovative ideas, co-producing innovation as well as the service!

**New value systems** (chains and clusters), new sets of business partners involved in jointly co-producing a service (and often a new service). This is a point where discussion of open innovation and service innovation coincide. Important new services can be developed in large communities linked through platforms and networks of businesses.

**New revenue models:** the distribution of costs and revenues needs to be aligned, especially where multiple actors are involved. The shift to charging for a service rather than selling a good could be seen as a new revenue model, as could the shifts between subscription and advertising-based models for online services.

**Personnel, organisation, and culture elements of a new delivery system:** these involve alignment of management and organization so as to enable service workers to perform new jobs, and to develop and offer innovative services. "Soft" elements of the service delivery system can allow firms to differentiate themselves from the competition. This may require new organisational structures and team skills, for example, and can be a focus for innovation as well as a necessary complement to innovations that are centred on the other dimensions.

**Technological elements of a new service delivery system:** application of new technology (predominantly, but not exclusively IT) to allow for improved production and use of services by allowing for new interfaces and ways of delivering services or service elements.

A service business can innovate on any or all of these dimensions, and many service innovations will be a combination of the dimensions, which may need to be aligned in specific ways. When there is a great deal of change on multiple dimensions, we are liable to see what is known as Business Model innovation, den Hertog et al. (2010) go on to examine the management capabilities that may be required to support such service innovation processes effectively. Six “dynamic service innovation capabilities” are identified: (1) signalling user needs and technological options; (2) conceptualising; (3) capabilities in bundling and unbundling; (4) co-producing and orchestrating; (5) scaling and stretching; and (6) learning and adapting. The argument is that successful service innovators (including manufacturing firms that are servitising) are liable to outperform their competitors in at least some of these capabilities. This seems to be a fruitful basis for future studies.

## Service Innovation Management, New Service Development, and the Rise of Service Design

In addition to the many survey studies published in recent years, there are now some very substantial overviews of service innovation and innovation in services, for example many chapters in the *Handbook of innovation and services* (Gallouj and Djellal 2010). When these studies focus on the organisation of innovation in service organisations, they suggest that these are typically different from the R&D management model that is supposedly characteristic of manufacturing. The classic R&D pattern features specialized R&D departments (and dedicated R&D managers and staff) conducting research of a strategic nature does exist in some service organisations. Technical KIBS and some large service organisations may follow such a model—just as in manufacturing it is most prevalent in high-tech and larger firms. As the synthesis approach suggests, too, often firms apply more than one model across their range of innovative activities; the R&D activity may be directed at the main products and industrial processes, for example, but not at web presence, distribution and retail activities, or at other product-related services.

A useful classification of different approaches to managing service innovation was proposed by Sundbo and Gallouj (2000). They present seven broad patterns, more than one of which may be used in any given organisation:

1. The **classic R&D pattern** is found mainly in large and/or technology-based firms.
2. The **Services Professional Pattern** is one that often applies in knowledge-intensive organisations such as KIBS, whose professionals often generate solutions for clients that are ad hoc and highly customised. Their innovations typically rely on employees’ professional skills. Much innovation intelligence may flow through professional networks and associations, or other communities of practice. Many consultancy firms and some “creative industries” (e.g. advertising and design) follow such a model. One major challenge for these firms is “capturing”

and replicating innovations that are made in practice by professionals, and much attention in knowledge management is directed to this.

3. A **Neo-Industrial Pattern** lies between patterns (1) and (2): alongside a specialised R&D or innovation department, there is much more distributed innovation in the course of professional practice. This often characterises, for example, health services and some large consultancies.
4. The **Organised Strategic Innovation Pattern** is encountered in large service firms, such as airlines, hotel chains, and retailers. Innovation is organised in the form of projects that are directed by more or less transitory cross-functional teams, working through distinct steps of project management, and often with strong leadership from marketing groups.
5. An **Entrepreneurial Pattern** characterises start-up firms that offer services based on more or less radical innovations: these may be technological or rely more on new business models: many so-called gazelles, online services, and others follow this pattern, across many sectors: typically it is short-lived and they move into one of the other innovation modes.
6. The **Artisanal Pattern** is found in many smaller-scale and low-tech physical (“operational”) services, such as clearing and catering. These are classic supplier-driven sectors, where major innovations are imported from other sectors (e.g. manufacturing), though innovation may also be driven by regulations and demand. Employees and managers may be sources of (typically incremental) innovation.
7. Finally, the **Network Pattern** involves a network of firms acting together, and adopting common standards or operating procedures. There may be a dominant company in such a network, and this has been the case in the rolling-out of such innovations as ecommerce, where often a major customer has requested that its suppliers use standardised means of electronic trading. Many services are organised in franchise networks through which such diffusion of innovations may take place: this is familiar in sectors such as fast food and hotels, and also in some professional sectors.

Historically there may well have been less emphasis on innovation in service firms than in manufacturing industry, and less sophistication of innovation management in the former than in the latter. However, things have been changing very rapidly, and much work is underway on innovation and innovation management among researchers and practitioners.

One result of this is an upsurge of attention to New Service Development (NSD); Johne and Storey (1998) presented an early review of studies that often stressed the challenges for marketing new services associated with co-production and interactivity. Martin and Horne (1993, 1995) focused on the factors facilitating successful introduction of new services. The NSD process is typically seen as requiring more attention to customer features and roles, and to their expectations and experiences. The cooperation of users is critical in shaping the quality of the service outcome, and the effectiveness of service innovation. Similarly, employees are often vital, since their interaction with customers is central: they are co-producers of the service, and may require skills and knowledge to support innovation. Again, their knowledge and

insight (of customers and of service processes) may be vital. Successful NSD was rarely achieved, and by a few experts. It is fairly common for service innovation to be organised through transitory project management structures—and much innovation emerges from ad-hoc, on-the-job experimentation.

Another very interesting development, which has considerable promise for provoking new approaches to service innovation across many organisations and sectors, is the emergence of a body of practice around “service design”. Methods such as service blueprinting have been in use for some time, (see e.g. Bitner et al. 2008 for a recent account), but a wide range of tools and techniques from various origins—storyboarding (from the creative industries), interface and interaction design (from informatics), and more—have emerged as methods used to model and design complicated services, often involving multiple service encounters and relationships extended over long periods of time and multiple venues. Many established industrial design firms have started to address service design, and specialised firms have emerged to focus on this activity. (A journal of service design, *Touchpoint*, was launched in 2009, and there are several online communities associated with this body of activity. For reviews of the field see Moritz 2005; Saco and Goncalves 2008.) Again we see that distinctive techniques have had to be developed to reflect the intangibility and interactivity of service processes and relationships.

## Future Directions

This is a great moment at which to be exploring case studies in service innovation, because this exploration can now contribute to a growing and deepening body of research and practice. No longer do we need to go around proclaiming that services can be the focus and origin of innovation. We can now devote more energy to forming and testing ideas about how innovation processes operate, and how they can be enhanced. Given that service sectors are the bulk of the economy, and that many of the pressing problems of the world are ones that services have to tackle, the need to improve our understanding and practice is a pressing one. Research should be able to inform the practice of service-producing organisations, and the policies that governments and public organisations are implementing in support of service innovation. New approaches to service science and the study of service systems (e.g. Maglio et al. 2010), alongside new service design practices, demonstrate that this is a remarkably vital topic.

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