

1. Introduction

Jon Sundbo and Marja Toivonen

This book is about user-based service innovation. It offers a broad view of innovation, highlighting the significance of small improvements which together result in a 'jump' in the otherwise smooth running of daily life. When these incremental innovations accumulate, they may function as a catalyst which leads to quite significant changes in service practice, be it in customer services, public services or industrial services. Our main argument in this book is that for a company or organization, a user-based approach is an important success factor in service innovation. This approach involves understanding the needs of users, collaborating with them, and taking into account the fact that services develop in use, that is, users themselves are innovators.

1 SERVICE INNOVATION THEORY

1.1 An Extended 'Synthesis View' on Innovation in Services

Since the mid-1990s, the topic of service innovation has aroused a broad interest both within academia and among policy-makers, and the variety of studies has increased considerably since then. We can identify two reasons for this development: a broadening of the understanding about the nature of innovations, and a deepening of the understanding about the specificities of services. Over several decades, interest in innovations had focused on radical technological inventions that emerge as the results of systematic research and development (R&D) in scientific or corporate laboratories. Questioning this view became possible due to the spread and generalization of empirical innovation studies. These revealed that incremental and less tangible improvements are significant for innovation and may gradually lead to radical changes. In addition, the important role of everyday organizational practices for the creation of innovations became apparent (Lundvall, 1992; Schienstock, 1999). These observations have had a great impact on innovation research in general, and they have

been particularly crucial in the service context. Indeed it is now thought that these play the *major* role in service innovation, something which was simply not captured by the earlier paradigm.

At the same time, systematic research into the specific nature of services has contributed to the understanding of service innovations, the processes in which they emerge, and the managerial practices which can support their creation (cf. Gallouj and Djellal, 2010). An important service innovation specific characteristic is the difficulty one can face in identifying when a transition from one service to another has taken place; recognizing 'newness' is much easier in industrial products than in services. Applying the traditional categorization of product, process and organizational innovations is also hard when looking at services, because service products are, essentially, processes, and processes are, first and foremost, visible in the organizational settings of a service firm. These characteristics as well as the rareness of R&D departments make it difficult for service firms to tell whether they have created something new or what kind of innovations they have created. Sometimes innovation activities are carried out in projects, but very often they are involved in other activities, for example strategic planning, training or market development. Investments in human resources are often a better indicator of innovativeness in service firms than are R&D expenditure or performance. In addition to new service products, innovations are often reflected in the increased knowledge and skills of service personnel (Gallouj and Weinstein, 1997; Miles, 2001; Preissl, 2000; Sundbo and Gallouj, 2000).

While recognizing the specific nature of services, researchers are increasingly proponents of the so-called 'synthesis view' as regards innovation in manufacturing and in services (Boden and Miles, 2000; Gallouj and Weinstein, 1997; Preissl, 2000; Sundbo, 1994). Manufacturing is no longer seen as being more advanced in terms of innovation and as something services should imitate. Researchers highlight that services should be studied as entities of their own, recognizing, however, that many opportunities and challenges are common to both manufacturing and services. The 'servitization' of manufacturing provides an additional reason for a common approach: many manufacturing firms regard the provision of services as a key growth area for their businesses in the future. The underlying reason is the increasing role of intangible assets (relationships, information and knowledge) as sources of value in comparison to tangible assets (physical materials and goods). At the offering level, too, the intermingling of goods and services is growing: in addition to 'pure services' and 'pure material goods', there are different types of hybrid products and total solutions including elements of both (Kotler, 2003). Because of this,

this book examines innovations in service as well as manufacturing firms, and also in public institutions.

Today services dominate the economic landscape and are associated with pivotal sources of growth. Service innovation is increasingly understood as a topic that is of utmost importance throughout the economy. Research in this area is carried out both on the basis of *general innovation theories* and on the basis of *service-specific theories*. The former theories have provided, among others, several useful categorizations that take into account the dispersed and partially 'invisible' nature of innovation activities in services. An example is the concept of a posteriori innovation: a situation where the innovative idea is recognized only after its application in practice (Gallouj, 2002). In the latter group, detailed work has been carried out first and foremost within the school of service marketing (e.g. Edvardsson, 1997; Fitzsimmons and Fitzsimmons, 2000). Marketing scholars do not use innovation terminology in their analyses, but apply the concept of New Service Development (NSD). Despite the terminological difference, their contribution to the understanding of service innovation is important: NSD researchers have focused both on the systematization of the development process of new services and on the modelling of the target service in order to facilitate its systematic development. A characteristic of NSD models is the emphasis put on clear stages in the development process, particularly in the latter end; the front end can be more diffuse, even chaotic (Toivonen and Tuominen, 2009).

In recent years, a third approach – *service design* – has gained ground. This approach is not rooted in innovation theories or service theories, but has its starting point in the practices of industrial designers who nowadays aim to extend their expertise from the traditional design of material products into the area of services (Hollins et al., 2003). A specific contribution of the service design approach is its provision of new types of three-dimensional tools for visualizing and concretizing the service concept to be developed. In addition to concept design, this approach emphasizes the significance of strategy as the starting point for the implementation of individual development processes. Here it has clear connections to those studies that analyse the management of innovation activities at the organizational level, highlighting that service innovation is rarely limited to a change in the characteristics of the service product itself (den Hertog, 2000). In order to both stimulate innovation activities and channel them towards common goals, an organization has to develop strategy-based innovation management. Particularly in the service context, where specific resources for innovation are rarely allocated, this kind of 'balanced empowerment' is a reasonable model (Sundbo, 1996). Recently, the strategic stance has been supplemented with arguments highlighting the

'openness' of innovation: successful innovation is a collective activity which not only empowers broadly intra-organizational actors, but also includes various external stakeholders (Sundbo and Fuglsang, 2002).

The original 'synthesis view' on service innovation highlighted the common features of services and manufacturing. The analysis above shows that we also need a synthesis of several other viewpoints in order to understand service innovation deeply enough. We have to overcome the differences between different schools of thought: innovation research, service marketing and service design. We also have to analyse innovation from different perspectives: as 'newness' emerging in service products (offerings), as individual processes leading to new services or to renewals in existing ones, and as managerial tasks that – on the basis of strategy and in collaboration with users, partners and other stakeholders – take care of the resources, activities and results at the organizational level.

1.2 Users as the Driving Force

Within innovation theory, the emphasis has recently been placed on users as the driving force, or at least the source, of innovation. The market – and thereby the users – has always been present in innovation theory. The so-called push (innovations come from inventions) – pull (innovations only come if the market accepts them) discussion is almost as old as innovation theory itself (Rosenberg, 1976). Earlier theory and research has emphasized the market possibilities or the product life cycle as an important determinant of innovation (Kamien and Schwartz, 1982; von Hippel, 1988). Innovation has even been presented as part of marketing theory (Kotler, 1983). Recently, innovation has been seen as strategic (Sundbo, 2001; Sundbo and Fuglsang, 2002), which means that a firm's management decides about which innovations to implement within a strategic framework; the strategy is based on perceived future market possibilities (cf. Porter, 1980).

The increased focus on the market and users has been generated by some strong theories or models which, partly based on empirical studies, prescribe a certain view on innovation. Among others, this development has been promoted by an adjustment, called open innovation (e.g. Chesbrough, 2006), of the closed techno-economic model of innovation as science-push based internal processes (Sundbo, 1998). The introduction of the notion of lead users (von Hippel, 2005) as a source of innovation is another important promoter for this development.

This theoretical turnaround has received a positive response particularly from those working with service theory and research. The dominant service management and marketing theory (van Looy et al.,

1998; Grönroos, 2000) emphasizes the service firm's encounter with the customer as the essence of a service. The customer focus thus has always existed within this tradition. It was natural to focus on the user when innovation issues were introduced into the study of service production and provision (e.g. McMeekin et al., 2002). New fields of practice-oriented prescriptive models based on users as the most important source of innovation have emerged, often called New Service Development (Fitzsimmons and Fitzsimmons, 2000; Edvardsson et al., 2006). Thus, to see the user as the basis for service innovation has been an imperative for some time.

2 SPECIFYING THE CONCEPT OF THE USER IN THE CONTEXT OF SERVICE INNOVATION

2.1 Defining User-based Innovation

An explicit definition of 'user' is difficult to find in the literature that discusses user-based innovation. Implicitly the concept is, however, quite clear: it refers to a person or an organization who or which applies the end result of the innovation process in practice and benefits from it due to the new value included. It is important to note that the end result of an innovation process may not benefit the *immediate user* only (or even primarily), but there may be a shorter or longer chain or network of actors. Often the focus is on the last link in the chain – on the *end user*. In addition to active users, the concept also involves *potential users*.

In manufacturing and primary production (agriculture, fisheries, etc.), a user of the product is identifiable as a separate actor. This is more complicated in services. An important difference between material products and services, influencing the interpretation of the concept 'user', is the nature of services as entities in which a production process and a consumption process coincide. The user of a service benefits not only from the end result but also directly from the process (Edvardsson, 1997; Grönroos, 1990). In some services (e.g. experiential services, cf. Pine and Gilmore, 1999), there is no discernible end result at all. In the service process, the user is a more or less active party – the co-production relationship has been highlighted as a fundamental characteristic of services (Gallouj and Weinstein, 1997; Sundbo and Gallouj, 2000). Thus, in the service context a 'user' often means a 'user-producer'. The recent Service-Dominant-Logic (SDL) perspective has supplemented this view with the value creation perspective: it highlights the value in use and its co-creation. The service provider cannot create value on behalf of the user, because the value manifests itself only when the service is consumed (Vargo and Lusch, 2008).

However, not all services follow the classic user-producer pattern. If the service is 'industrialized' and provided without the purchaser doing anything (such as cleaning or goods transport) (cf. Levitt, 1976; Sundbo, 2002), the purchaser is not a co-producer. Semantically it is difficult to call the purchaser a user in this situation. However, to make the concept of user operational – enabling the concept to be used generally in innovation theory and prescriptive models – we will also include this situation in the definition of 'user' and call the purchaser a user. Logically this definition can be defended because the purchaser might have been a co-producer in all these situations.

Summarizing the conceptual discussion above, we define the 'user' of a service as a person or as an organization who or which actually or potentially benefits from a service through receiving it or through participating more or less actively in its production and development. The concept of user can be linked with both business-to-business services and consumer services. If a user is a person, he or she can also be a consumer, citizen, and have other roles. If a user is an organization, it can be a firm, public organization, association, and so on. The concept 'user-based service innovation' refers to the development of a new or modified service, or the conditions of its production, in a way which: (1) emphasizes the acquisition of deep and shared understanding of user needs, and actually utilizes this understanding in the development process; and/or (2) co-develops innovation together with users. The co-development may mean that users are the original sources of innovation, partners in the innovation process, or further developers of a launched novelty.

The concept of user can be discussed in relation to the concepts of 'customer', 'client', 'consumer', and 'citizen', which we also could have chosen to characterize the innovation process. We have chosen the concept 'user' for two reasons. First, because it is the most neutral, and therefore most general, of the above-mentioned concepts. It refers to the practical situation of using something (e.g. advice from a lawyer) or having something done (e.g. a room cleaned), and not to the process of procuring it or the motive behind procuring it. The other possible concepts have the latter two characteristics. By choosing 'user' we can apply the same concept when we examine services in the market-based sector (where people are customers) and in the public sector (where people are citizens). The second reason is that the concept 'user' has recently gained ground internationally in both the scientific literature (e.g. von Hippel, 2005) and the policy context.

In the next section we will discuss further the different concepts that are related to 'user' – our basic concept throughout the book. However, some chapters have a particular reason for adopting some of the other

concepts referred to above. The reason for doing so will be presented in each chapter.

2.2 'User' and Related Concepts: Customer, Client, Consumer and Citizen

In the material world, using something implies the idea of a tool: the innovation process provides users with new, better tools (Hasu, 2001). This holds true in some service cases too, but not generally. Several service researchers have made a distinction between different types of services on the basis of 'what is being handled' or 'what is being changed'. Goods, information, and persons have commonly been regarded as the basic groups. In the first case, tangible objects are processed in some way, that is, transported, transformed, maintained, repaired and so on. In the second case, information is produced, captured, diffused, stored or revealed. The third case involves a change in the physical or mental condition (health, skills, emotions, etc.) of a person (Illeris, 1989; Miles et al., 1995; cf. also Djellal and Gallouj, 2005). This last-mentioned case in particular requires a broader interpretation of use-related concepts – the idea of a new tool as the result of service innovation is odd here.

Service design is one of the approaches that have promoted the idea of user-based development of services (e.g. Saco and Goncalves, 2008). However, emphasizing users as central drivers of innovation is today spreading to other approaches as well. Here, particularly in service marketing based literature, receivers of a service have usually been referred to as 'customers' or 'clients' instead of 'users'. Recently, also other roles of the service receivers have been introduced into the discussion; it has been realized that a specific service relationship provides quite a narrow view of the human world in which, among other things, people are consumers, citizens and members of various communities that form their reference groups.

When the focus is only on the consuming of a service, *the concepts of customer and client* are near to the concept of the buyer of a service. However, the buyer's role is linked to individual buying situations and decisions, whereas the roles of 'customer' and 'client' may be longer-term. (The role of user is even more long-lasting – services are acquired from various providers and used on a regular basis as part of daily life.) In addition, the co-production relationship highlighted in the above paragraphs implies that customers and clients are important actors in the production side as well: the customer acts as a resource (providing information) and as a co-producer (performing work) in relation to the service received (Lengnick-Hall, 1996). Besides their role in the service

production, customers are increasingly involved in innovation and development activities. The concept of customer has its roots in business relationships in the private sector, where the customer relationship is typically seen as direct and reciprocal; both the firm and the customer receive some direct value from the transactions. Customers themselves are suggested to be sovereign and rational, being able to decide whether or not they want to do business with a specific firm and having the option to choose between different services (Alford, 2002).

The literature based on the concept of consumer points out that even though value is essentially created in cooperation between the provider and the customer, it is important to take into account the value network that is external to the dyad. The so-called cultural consumption theory highlights value drivers that reach beyond financial aspects; it draws attention to social, cultural, moral and political values that influence both individual consumers and consumer groups. Actually, the latest discussions in relationship marketing come close to this view, and indicate that the gap between managerial business sciences and consumer research is narrowing (Kaijane, 2010). The possibility to predict and manage the behaviour of consumers is, however, a topic where the views essentially differ. Despite the recent emphasis on emotions and experiential factors, the starting point in business sciences is that there is enough rationality to secure manageability. On the contrary, consumer researchers argue that unpredictability, inconsistency and contrariness characterize today's consumption; the concept of consumer is increasingly fragmented and the notion of average consumer has become a fiction (Gabriel and Lang, 2008).

The concept of customer has been transferred to the public sector context along with the new management models which highlight that the recipients of public services have the right and obligation to be active participants in planning and producing these services. Also ideas linked to consuming have been applied in a similar vein: freedom to decide between public services like a consumer in a market has been emphasized, for instance (Newman and Clarke, 2009). In the public sector, *the concept of citizen* is, however, tightly linked with service provision and use, and complicates the situation. Citizens are not only individuals but responsible members of a collective, and they are not always sovereign actors but restrained by existing structures, for example power structures (Rosenthal and Peccei, 2007). Thus, it is reasonable to argue that the rights and responsibilities of citizens are very different from those of customers and consumers, which implies that also user-based innovation has a specific character in this context.

Summarizing, we can say that the concept of 'user' may be supplemented with the concepts of 'customer' ('client'), 'consumer', and 'citizen'

depending on the context of the discussion. Further, users are not simply individuals, atomistic actors, but a part of a social system and culture, as well as of social and cultural reference groups. Hence the social group perspective is essential.

2.3 Different Roles of the User in Service Innovation

There are two main ways in which user-based innovation has been understood in the literature: taking user needs as the starting point, and relating to users as innovators. Both viewpoints are old and both are still extensively applied. The former can be traced back to the emergence of interest in 'user feedback' in the 1970s and early 1980s (Nelson and Winter, 1977). Empirical studies following this line of thinking indicated that the most important single factor in the success of innovations is the understanding of user needs and circumstances (Freeman, 1991). Being based on evolutionary economics, these studies did not pose the question of how a producer acquires the necessary understanding of user needs. This gap has been filled later by abundant managerial studies. The early findings have also formed the basis for the studies by von Hippel (e.g. 1978 and 1988) – these studies concentrate on the analysis of the role of users as innovators. According to von Hippel, users provide more than merely an idea for a new product. They may supply an innovating firm with the identification of a problem or need, product-related specifications, or even a complete product design. Lead users are particularly important in this respect (von Hippel, 1986). They face needs that will be general in a marketplace, but do so months or years before the greater part of that marketplace encounters them. They are also positioned to benefit significantly by obtaining a solution to those needs.

Service marketing scholars have played a central role in developing managerially oriented research based on the early emphasis on user feedback. The view of relationship marketing has pointed out that using customers as informants not only ensures the success of services, but also increases the loyalty of customers. In addition to the empirical evidence on the significance of customer input, methods of acquiring and structuring customer information have been developed within this framework. The versatility of information has been considered important: customer information should include facts about the profile of customers (demographic data of individual customers and business figures of corporate customers), and sufficiently behavioural information and information about the development of the customer relationship (Xu and Walton, 2005). Information should be gathered not only *about* the customers, but also *from* the customers (Rowley, 2002) – customer information often includes weak signals

about future developments. This kind of information is particularly valuable, because it enables the analysis of potential customers. Service encounters as a source of customer information have been emphasized besides surveys; a problem with the latter has often been quite a narrow focus: the satisfaction of customers.

In the newer studies concerning the needs of customers and users, two additional perspectives have come to the fore: (1) the role of *user experience*: and (2) the importance of elaborating information on user needs into *shared understanding within the provider organization*. The first perspective focuses on the phenomenological side (lived experiences) of the service and on social networks as the framework for experiences (e.g. Payne et al., 2008). An important characteristic of experience is its holistic nature: the service and its tangible elements together create the overall user experience. As regards innovation in services, the experiential approach reveals an aspect which other approaches have usually ignored – novelties are not recognized and perceived in a similar way by different actors. Consequently, there are novelties that service providers define as innovations (and that are innovations in the economic sense), but which users do not regard as useful novelties from their own viewpoint. The second new perspective highlights that information gathering as such does not guarantee its purposeful application. In order to be applicable, customer information has to be structured, elaborated, interpreted and shared within the organization. The formation of shared understanding on the interpretations and implications regarding customer information is often much more demanding than the gathering process as such; however, it is crucial for successful practical operations and organizational strategy (Nordlund, 2009).

The role of users as innovators has been analysed, in addition to the original 'pre-innovation' approach by von Hippel, during the innovation process or after it. The significance of interaction between producers and users during the innovation process is increasingly gaining a foothold. This perspective has its roots in Kline and Rosenberg's (1986) famous article which questioned the linear model of innovation. Several empirical studies have confirmed that models of a spiral or circular type capture the nature of real-life innovation activity better than a linear sequence (usually consisting of idea generation, screening, commercial evaluation, technical development, testing and commercialization). This means that users can and should come into the picture earlier than at the point where a new service is offered on the market. On the basis of these insights, the linear model has been modernized into more flexible stages models where the parallel conduct of different development tasks is seen as possible and where the input from users can be taken in at every stage. Users can be

involved as informants, as active co-creators and as a prototype-test population, for example (Alam and Perry, 2002). Often the innovation process is divided into two main parts: the so-called fuzzy front end that emphasizes creative problem-solving, and the more systematic development that highlights rational planning (Koen et al., 2001). In this context, user input has been considered to be valuable first and foremost in the front end.

Recently, some researchers have questioned the whole idea that planning always occurs first and is followed by implementation (e.g. Eisenhardt and Tabrizi, 1995; Engvall et al., 2001). If product or service development is an uncertain path through shifting markets and technologies, it is reasonable to adopt an experiential model which merges planning and execution and assumes a process which relies on real-time experience. By putting the idea into practice right from the beginning in a preliminary or small-scale form offers a new way to include users in the innovation process: it is possible to create shared experiences of the object to be developed. In this way developers can – at least to some extent – take the perspective of the users, and not only ‘become informed’ about it (Hasu, 2001). This ‘model of rapid application’ (Toivonen, 2010) has common points with those approaches that highlight that *users are not only important sources of ideas, but they have an important role in the stage in which an innovation is put to use*. Researchers focusing on this topic have emphasized the criticalness and complexity of the transition from the innovation process to the implementation and pointed out that this transition is often left as a ‘grey area’ in innovation literature (Hasu, 2001).

Newer user-centric views have also discussed the continuance of the innovation process after the launch. Tuomi (2002) describes this phenomenon in the context of new technology. According to him, new technologies are not completed and unchangeable artefacts, but are very often modified in use, and therefore include an element of re-invention. Technological novelties are also actively interpreted and appropriated by the users; one technological artefact can have different meanings for different user groups. Sundbo (2008) has recognized the same phenomenon – *after-innovation* – in the context of knowledge e-services. He states that an innovation in these services is not completed when it is launched on the market, but adjustments need to be made if it is to be successful. The reason behind this finding is the difficulty in basing innovations on customer knowledge before the launch because customers cannot say beforehand what they want and they even have difficulties in assessing prototypes. They react by suggesting ideas for improvements when they use the service in practice.

Finally, recent research has emphasized that users may not only have multiple roles in different stages of the innovation process, but there are also very different user groups. In addition to lead users, ordinary users,

advanced users, critical users, unresponsive users and non-users should be taken into account in innovation (Heiskanen et al., 2007). Besides individual users, user communities are increasingly important sources of innovations – both existing communities and new communities that are grown around the service. A common feature characterizing different schools of thought is that the emphasis is moving away from the question ‘can the user cope with the service’ to usage motivations and user attitudes towards the service throughout its life cycle. Among designers, this development has meant that the earlier, quite narrow focus based on the concept ‘usability’ has been replaced with the concept ‘user experience’. Also in marketing research, a transfer of the core concept can be perceived: instead of customer satisfaction, the focus is increasingly on customer value and customer experience. These views take better into account the subjective, dynamic and context-dependent nature of service use, and also pay attention to negative aspects of experience (Kaasinen et al., 2010).

Summarizing: users can be involved in the innovation process at different stages and in different modes. In this book we will further discuss the different stages and forms of user involvement in service innovation.

3 PROFILE OF THE BOOK: USER-BASED SERVICE INNOVATION IS NOT EASY – BUT NECESSARY

The focus of this book is on innovation *processes*. The book emphasizes management; social processes involving several actors such as users, employees, suppliers and external experts; as well as technology (not least IT). All these are necessary for an idea coming from a user to becoming a fully realized innovation at the other end of the process. The basis for this approach assumes that innovation is not about smart ideas that quickly solve the problem, but hard work. Even a good idea does not make an innovation in itself; firms must work hard to transform it into an innovation. This is also true if the idea is presented by a user. The hard work means organizational, social and sometimes technical processes.

User-based innovation has increasingly dominated practice because innovation is necessary for firms to survive and grow. It is necessary to focus on users in the innovation processes because the users are those that have to pay for and thus accept the innovation. The earlier the users come into focus in the innovation attempt, the greater the chance of success.

Several countries have introduced programmes supporting user-based innovation. Finland and Denmark are among those countries that have had the largest programmes for supporting research and practical development of user-based innovation. These countries, particularly Finland,

have created particular programmes for promoting user-based innovation in services. The two research groups that have written this book have been based on grants from these programmes and have therefore had the opportunity to go into depth with this topic, including empirical investigation of how user-based innovation is practised in service and other firms.

This empirical research has revealed a truth that has not been emphasized much in the literature: user-based innovation in services is not easy. This statement is not as self-evident as it may seem at first glance. First, most of the theoretical literature referred to above is rather optimistic or proclaiming: user-based innovation is the right thing for firms to do; they should just start doing it. The user-based innovation process – from idea to realized innovation – is often presented as smooth if the firm just follows the right model (e.g. Cooper and Edgett, 1999). However, the right model has probably not yet been found and therefore much research is dedicated to finding it and to finding the corresponding tools. This research agenda is still important and has also been one effort in the projects that have been the background for this book. However, since user-based innovation is about social processes in which several actors inside and outside the organization are involved, the process may be assumed not to be that smooth. Sociology and organizational studies have taught us that social processes are complex, filled with conflicts, communicative misunderstandings and passivity, un-perfect managers (and other people as well) and so forth. These complex conditions should also be reflected in theories.

When we come to practice, the problems of user-based innovation become even greater. Service firms and other firms that develop service innovations, or that should, according to innovation theory, very often do not. This is not always caused by lack of tools and methods. Many firms that try to practise user-based service innovation by applying such tools are not successful. The empirical studies that are the background for this book have investigated many different service firms, and also some manufacturing firms, perceiving that in many cases user-based innovation is not on the agenda. Or, if it is, it is only in the rhetoric, not the practice. Many firms try to practise user-based service innovation, but the outcome – successful service innovations – is often insignificant and disappointing.

These observations do not lead us to the conclusion that user-based innovation is impossible and should be abandoned, but that this type of innovation is difficult, and in-depth research is needed to identify the difficulties and how they can be overcome. Such research has been carried out by the two research groups that have produced this book and is the basis for it. The book presents aspects of user-based service innovation that include possibilities and difficulties. The possibilities can be exploited

by firms and the difficulties overcome. Some of the chapters of the book present suggestions about how to do this. However, the main aim of the book is not to present prescriptive models, but to present a better understanding of the phenomenon of user-based service innovation based on identification of the possibilities and difficulties. This identification is conceptualized in different forms.

The book thus is a critical examination of user-based innovation based on empirical studies. Almost all the chapters therefore contain one or more cases, both to demonstrate the empirical basis and to improve the understanding of this phenomenon. Earlier research has revealed that users can be involved in innovation processes in different degrees and ways (Alam, 2002). This book goes further into the processes and strategies of the firms and public organizations to look at how these organizations handle user-based innovation internally. How do they perceive the users' role in the innovation process? Is this part of the firm's strategy or business plan? The role of users may depend on how the firm considers its business. A particular issue is user-based innovation in the public sector. Is the user's role in the public sector different from the one in the market-based sector? Some of the chapters discuss this important issue, which has not been investigated much (one exception is Windrum and Koch, 2008).

We also go into the organizational processes within the firm – after the first encounter with the user. What happens then? Many challenges and barriers must be met when the user-based idea is to be developed into a realized innovation, that is a new service is launched on the market, or a new process, organization, market behaviour or business model is implemented. We must understand these organizational processes in order to provide scientific results and tools that can lead firms to successful user-based service innovation.

The central theme of this book could be called user-based innovation as a business model. This means that we are emphasizing how firms – service and manufacturing firms and public institutions – look (or do not look) at the users as a source to innovation and how they act to use this source. This focus and action depends on how they see users and innovation in relation to their business (or their task, if it is a public institution), that is, how they incorporate the user-based innovation in their business model.

Although it is not easy, many firms can handle user-based innovation and have incorporated it in their business model. Most of them have gone through a learning process. Scientists and practitioners can learn from these firms. This is another important aspect of this book: to see user-based innovation as an organizational learning process that is carried out inside the firm and among firms. In many of the chapters we present models for this learning based on successful cases.

4 STRUCTURE OF THE BOOK

A central theme of the book is the customer–employee encounter as the basis for user-based service innovation. Users and employees, and of course managers, are the focus. Further special topics that have not received much attention before are also treated here. They include the issue of the merging of services and manufacturing and how that affects the users' role and the organization of innovation activities. Manufacturing firms experience servitization, that is they increasingly define themselves as becoming service firms (Vandermerwe and Rada, 1988). Correspondingly, service firms adopt practices of productization, that is they increasingly develop systematized service offerings and delivery processes (Coombs and Miles, 2000). Other issues are globalization, which presents new possibilities and challenges for innovation processes, and the role of IT, which changes the service encounter radically. As regards various service sectors, we focus particularly on business services and public services, which until now have been discussed much less than market-based consumer services from the viewpoint of user-based service development.

The book is divided into four sections. The first section presents a theoretical and principal discussion of user-based perspectives in service innovation. Lars Fuglsang opens this discussion in Chapter 2 by introducing the concept of bricolage in order to understand the user–employee encounter. His analysis is based on three case studies and emphasizes employees' ad hoc solutions to clients' problems as a source for service innovation. In Chapter 3, Donna Sundbo continues the focus on employees' role in user-based innovation by discussing how employees may fail to see possibilities for user-based innovation because of too much professionalism. This viewpoint is illustrated by a case study of a café. Jon Sundbo finalizes the first part of the book in Chapter 4 by presenting a model of 'extended value chain innovation'. This model analyses user-based innovation at the interface between services, manufacturing and experience. It is derived from experiments and describes how and why collaboration between actors in a value chain (including users' users) can lead to successful innovation.

The second section of the book discusses and applies user-based approaches in the innovation of business services. Three chapters focus on knowledge-intensive business services (KIBS) and one chapter on industrial services. In Chapter 5, Hanne Westh Nicolajsen and Ada Scupola show that users are not only involved in incremental and practice-based innovations, but they can also be partners in breakthrough innovations and in innovations that are based on research and technology. The authors base their discussion on a case study of an engineering consultancy

firm – a sub-sector of KIBS. Chapter 6 examines the same sector: Otto Mäkelä and Mikko Lehtonen analyse how the concept of the business model can be used as a communication tool when developing a KIBS company's services in a user-based manner. A specific perspective in this chapter is internationalization: the authors have carried out a case study in an engineering company which has entered different types of foreign markets (developed and emerging). In Chapter 7, Markus Holzweber, Jan Mattsson, Doren Chadee and Revti Raman continue the discussion about services internationalization, focusing particularly on IT services. They have examined the exporting success of Indian IT companies and conclude that important factors behind this success are user-orientation combined with a clearly defined competence-based strategy. The second section ends with Taija Turunen's study on user-based approaches in servitizing manufacturing in Chapter 8. Based on a case example of a company that sells indoor-climate equipment and corresponding services, she points out that servitization does not always start from product-related repair and maintenance, but companies can provide even KIBS type services right at the beginning of this process.

The third section of the book deals with user-based service innovation in the public sector, pointing out its different character compared to the market-based sector where private firms operate. This issue is very topical and an important discourse in many countries; however, little theoretical analysis about what 'user' and 'innovation' mean in the public context has been carried out. In Chapter 9, Luise Li Langergaard fills this gap by reviewing how these two concepts have been interpreted in theories about the public sector, and which kinds of problems are connected to their application within this sector, which is political and not market-based. Mikko Lehtonen and Tiina Tuominen continue that discussion in Chapter 10 with an in-depth investigation of how the citizen as a user of public services can be a partner in the innovation of public services. They illustrate this issue with a case study of public health care. In Chapter 11, Mervi Hasu, Eveliina Saari and Tuuli Mattelmäki emphasize the importance of combining the user-driven and employee-driven perspectives in service innovation and suggest a framework for this kind of combination. They apply their perspective to a hospital case using a workshop model in which service innovations are produced together with users, and which also empowers employees as developers of their own work.

The fourth and last section of the book discusses practical issues and methods in the structuring of user-based service innovation. In this section we summarize the experiences achieved and develop models and tools that foster further learning. The chapters describe both successful solutions and challenging issues in the organization of user-based service

innovation. Some chapters also present tools that are ready for use. We believe that the many concrete examples included benefit both academics and practitioners – managers of firms and organizations as well as policy-makers. In Chapter 12, Anu Helkkula and Mari Holopainen analyse the core issue: what is service innovation as employees' and users' experience? Based on case studies and narrative methodology, they demonstrate that the perspectives of users and employees often deviate quite significantly from the official view of the provider. The perspective of users also deviates from the perspective of employees, which underlines Donna Sundbo's argument in Chapter 3 about the problems linked to the professional role. In Chapter 13, Mari Holopainen and Pia Helminen analyse user involvement in innovation processes of an insurance company. The analysis leads to the suggestion of a combination of the approaches of foresight and service design. The authors develop a specific method called 'future-oriented 3D concept generation'. Flemming Sørensen continues the analysis of innovation practices in Chapter 14, in this case within tourism firms. The potentials of user-based innovation within tourism are discussed and investigated via interviews and a survey. The study reveals barriers for this type of innovation and includes suggestions for how to overcome these barriers. In Chapter 15, Hanna Kostama and Marja Toivonen discuss whether user-based innovation can rescue service firms in a financial crisis. They analyse a case from the airline industry to see how user orientation can lead to innovations that increase productivity and new sources of income. The final chapter, Chapter 16, also tackles the issue of how to combine efficiency and user orientation. Katriina Valminen and Marja Toivonen suggest that the productization of services should be seen first and foremost as a learning platform that enables the acquisition, sharing and systematisation of user understanding. In this way, productization and systematization of services are also tightly linked to innovation.

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