

# [Managing and organizing for innovation in service firms a literature review with ...](https://assignbuster.com/managing-and-organizing-for-innovation-in-service-firms-a-literature-review-with-annotated-bibliography/)

About VINNOVA VINNOVA, Swedish Governmental Agency for Innovation Systems. VINNOVA? s mission is to promote sustainable growth by funding needs-driven research and developing effective innovation systems. Through its activities in this field, VINNOVA aims to make a significant contribution to Sweden? s development into a leading centre of economic growth. The VINNOVA Report series includes external publications and other reports from programmes and projects that have received funding from VINNOVA. Research and Innovation for Sustainable Growth.

VINNOVA? publications are published at www. VINNOVA. se I VINNOVAs publikationsserier redovisar bland andra forskare, utredare och analytiker sina projekt. Publiceringen innebar inte att VINNOVA tar stallning till framforda asikter, slutsatser och resultat. Undantag ar publikationsserien VINNOVA Policy som aterger VINNOVAs synpunkter och stallningstaganden. VINNOVAs publikationer finns att bestalla, lasa och ladda ner via www.

VINNOVA. se. Tryckta utgavor av VINNOVA Analys, Forum och Rapport saljs via Fritzes, www. fritzes. se, tel 08-690 91 90, fax 08-690 91 91 eller order. [email protected]

se Managing and Organizing for Innovation in Service Firms A literature review with annotated bibliography by Annika Schilling & Andreas Werr Stockholm School of Economics Foreword VINNOVA (Swedish Governmental Agency for Innovation Systems) is a State authority that aims to promote growth and prosperity throughout Sweden. Our particular area of responsibility comprises innovations linked to research and development. Our tasks are to fund needs-driven research and to strengthen the networks that are a necessary part of an effective innovation system. VINNOVAs commitments in the field of work life development aim to strengthen business and public sectors contribution for a sustainable development by enlightening the importance of the employee as an actor and a creative resource. Focus lies on the organisation of work, and on management and leadership that increase the ability to develop a long-term sustainable working life.

The objective is global competitiveness. The number of companies that supply services increases. Services are thus an increasingly important part of the labour market with significant potential to contribute to Sweden’s growth. Knowledge about the role of work organisation and leadership in business development and innovation rests today mainly on experience from large Swedish industrial companies. This literature review was initiated in order to identify knowledge gaps in the scientific literature on how service work can be organized and led in order to safeguard and promote the innovation potential of employees.

The literature review is written by two scientists. Annika Schilling is Assistant Professor in Business Administration, working at the Stockholm School of Economics and Uppsala University. In spring 2008 she defended the thesis: Can consultants merge? A study of the importance of identity in a merger between the consultants. Her research has focused on communications consultants and their role in medialized businesses, HRM in professional services and innovation in service companies. Andreas Werr is Associate Professor and acting head of the Center for People and Organization at the Stockholm School of Economics. Werr’s research has mainly focused on different aspects of management consulting, knowledge work and professional service firms.

Current projects focus on knowledge integration in knowledge intensive services, innovation through solutions oriented services and HRM in professional service firms. His research has been published in e. g. Organizations Studies, Organization and the Sloan Management Review.

The authors show that there are significant gaps in knowledge and a great need for research on how service work can be designed, organized and led in order to promote the innovation potential of employees. Schilling andWerr identified and elaborate the following knowledge gaps and needs for further research: • • • • • • • • • Understanding the dynamics of the service innovation process Using contextualized models of service innovation Exploring and comparing different types of service firms Service innovation in business networks Knowledge and knowledge processes in service innovation Innovative climate and HRM practices Communication and “ talk” in the service innovation. Power and politics in the service innovation Gender studies of service innovationIn spring 2009 VINNOVA launches almost 40 million on research and development to help fill some of the identified knowledge gaps. The literature review is part of the preparatory work on the announcement.

In addition, an interview study is initiated and will be released during spring. VINNOVA in February 2009 Par Larsson ; Kerstin Waldenstrom Programme managers Working Life Department Content  Services are a growing part of the economy and in many countries a dominant source of employment. While new product development in traditional industrial firms is generally a well organized and managed activity, studied and supported by a large array of research, the development of new services in service firms is often more of an ad-hoc happening. Research has also been scarce when it comes to understanding and developing the processes by which new services emerge in service firms, even though research on service innovation and new service development has grown into a respectable and vibrant field of its own in the past 20 years (see Figure 1). This growth of research has gone hand in hand with a change in the view of services, from being seen as non-innovative, to a view that highlights innovation potential in services.

Information technology has been a strong driver in this development (Miles, 2000). While services may vary significantly in character, they have a number of characteristics that distinguish them from traditional products and which create specific challenges in relation to the development of new offerings. These characteristics are generally summarized under the aspects of intangibility, heterogeneity, inseparability and perishability (Johne ; Storey, 1998). Intangibility implies that services consist of ideas and experiences rather than physical artifacts. Services are about processes rather than “ things”.

As such service innovations may be hard to protect against competitors, but also for customers to judge and evaluate and to test in concept. Furthermore, services are generally produced in interaction with the customer, often in the customer’s local and varying context, making services heterogeneous. Every service delivered is in some aspect unique and under the control of the individual service worker, at the same time as consistency may be an important aspect of service quality. Controlling both the stability of the service offering as well as its change and development thus provides a challenge.

Furthermore, the production and consumption of services are generally inseparable making the customer a potentially essential part in the creation of new services. Following from the integrated nature of production and consumption, services are perishable in the sense that they cannot be stored. They cannot be produced to stock and sold at a later time, which makes capacity planning an important and challenging task. While these characteristics imply specific conditions for the development and delivery of services it has been questioned whether it is possible to make the clear distinction between products and services implied by the above.

Recent developments instead propose to go beyond the productservice distinction by introducing a “ service-dominant logic” (Vargo ; Lusch, 2004, Lusch et al. , 2007). A service dominant logic “ recognizes the firm and its exchange partners who are engaged in the co-creation of value through reciprocal service provision. ” (Lusch et al.

, 2007, p5). It suggests that all exchange (be it goods, services, money, etc) is fundamentally about the application of specialized skills and knowledge and involves the customer as well as other stakeholders as important co-creators of value. Both these perspectives emphasize the importance of the knowledge, skills and motivation of the individuals involved in service delivery processes for the perceived value of a service, but also for the processes of developing and launching new services (Johne ; Storey, 1998; Edvardsson et al. , 2006). A growing field of research has emerged around the issue of service innovation and new service development in the past 2 decades. Innovation is most often defined as the creation of something new – an artifact, an idea or a method – which is also put into use.

In this paper we review research focusing on the development of new services or work processes in service firms. The field is however still rather young with a large growth in research activity since about 2000 (see Figure 1). The current paper reviews this literature with a focus on organizational and management practices aimed at exploiting the ideas and knowledge of the service workers in the service firm for the creation of new services. Figure 1 Number of articles including the terms ” new service development” or “ service innovation” in the EBSCO literature database 1990-2007 90 80 Number of articles published 0 60 50 40 30 20 10 0 1990 1992 1994 1996 1998 2000 2002 2004 2006 8 1. 1 Purpose This study reviews the scientific literature on service innovation and new service development with a focus on what is known about the role of service workers in the innovation process and the organizational and management practices by which their knowledge may be exploited in the development of new services.

It provides an overview of the literature, a thematic analysis of the key themes covered by the literature as well as a discussion of research gaps and the need for further research. The study is based on a search of the EBSCO journal database as well as a review of the content of 10 scientific journals in different areas during the past 11 years (1998-2008). All in all, 74 articles were identified as relevant given the scope of the review. In addition to the journal articles a systematic search for dissertations on the topic published in Sweden in the past 11 years was carried out. Through this search five dissertations were identified as relevant.

1. 2 LimitationsThe review focuses on service innovations in firms that mainly produce services and thus may be labeled service firms. This excludes studies of service innovations within traditional product-oriented organizations or other types of service organizations, such as health care and public sector, unless these were included in the service firm category. Second, the review is focused on the role of the service workers’ knowledge and ideas in the creation of new services. This excludes for example studies with a sole focus on technology or marketing as main drivers of service innovation. Third, our focus has been on organizational and processual aspects of service innovation and new service development, thus excluding studies focusing mainly on corporate strategy aspects of innovation in service firms.

Since the focus is on service innovation – i. e. the development of new service offerings – studies of other types of change and development processes have been excluded. 9 2 Approach The literature review is mainly based on articles in scientific journals.

A search for relevant Swedish dissertations provided a number of additional sources. The review of journal articles was carried out in four steps. First, the EBSCO database was searched, for the time period 1998 through 2008, using the keywords “ service firm” combined with “ innovation”, “ new service development”, “ human resource management”, “ knowledge management” and “ learning”. Given our focus on the exploitation of the service worker’s knowledge and ideas in the service development process, the initial search was deliberately wide including aspects such as knowledge management and learning in service firms and HRM more generally. Second, based on the outcome of this broad search 10 journals which were well represented among the articles, and in which we thus expected to find a deeper discussion of new service development and the role of service workers in this process, were identified for closer study (see Table 1).

The journals were chosen to cover different disciplines and approaches to services and service development, including service management, innovation management, human resource management and organizational behavior and psychology. The results show that three journals seem to dominate the literature – Service Industries Journal, International Journal of Innovation Management and the Journal of Product Innovation Management. These are specialized journals focusing on the service industry and innovation respectively. Less research seems to have been carried out from a more organizational or HR perspective.

This motivates the inclusion of the Human Resource Management Journal in the study as we wanted to make sure that the lack of research in this area wasn’t a consequence of different keywords being used in the area. Although the first broad search identified a number of articles dealing with service work more generally, non of them explicitly discussed innovation or the development of new services. The content of these journals for the period of the past 11 years (1998-2008) was then reviewed in more detail to find further relevant articles which might not have been identified by the keyword search in step 1. 10 Table 1 Number of articles in the reviewed journals Journal Number of articles 15 Article references Service Industries Journal Abramovici ; Bancel-Charensol, 2004; Bjorlin Liden ; Sanden, 2004; Cainelli et al. , 2004; Camacho ; Rodriguez, 2005; Chan et al.

, 1998; Czarnitzki ; Spielkamp, 2003; Djellal ; Gallouj, 2006, 2007; Gadrey ; Gallouj, 1998; Howells, 2004; McCabe, 2000; Perks ; Riihela, 2004; Ramirez, 2004; Storey ; Kelly, 2001; Wong ; He, 2005) (Bower et al. , 2000; de Jong ; Kemp, 2003; den Hertog, 2000; Dolfsma, 2004; Hipp et al. , 2000; Hull, 2003; Lawson ; Samson, 2001; McMeekin ; Coombs, 1999; Miles, 2000; Uchupalanen, 2000; Wyatt, 2000) (Avlonitis et al. 2001; de Brentani, 2001; Ettlie ; Kubarek, 2008; Kristensson et al. , 2004; Leiponen, 2006; Mascitelli, 2000; Meyer ; DeTore, 2001; Song et al. , 2000; van Riel et al.

, 2004; Verganti ; Buganza, 2005) (Berry ; Lampo, 2000; Froehle et al. , 2000; Hull, 2004; Lievens et al. , 1999; Lievens ; Moenaert, 2000a; Magnusson et al. , 2003) (Gustafsson et al. , 1999; Kelly ; Storey, 2000; Kristensson et al. , 2008; Matear et al.

, 2004; Matthing et al. , 2004; van Riel ; Lievens, 2004) (Fitzgerald et al. 2002; Heusinkveld ; Benders, 2005; McCabe, 2002; Osborne, 1998) (Damanpour ; Gopalakrishnan, 2001; Lievens ; Moenaert, 2000b) (Hargadon, 2002) International Journal of Innovation Management Journal of Product Innovation Management Journal of Service Research International Journal of Service Industries Management Human Relations Journal of Management Studies Research in Organizational Behavior Journal of Occupational and Organizational Psychology Human Resource Management Journal Other 1 11 10 6 6 4 2 1 1 (Fay et al. , 2006) 0 18 (Alam, 2006a, 2006b; Anand et al. 2007; Bjorkman, 2004; Blindenbach-Driessen ; van den Ende, 2006; de Jong ; Vermeulen, 2003; Froehle ; Roth, 2007; Johne ; Storey, 1998; Kristensson et al. , 2002; Leiponen, 2005; Matthing et al.

, 2006; Menor ; Roth, 2008; Oke, 2007; Tether, 2003; Tether ; Tajar, 2008; Tsai et al. , 2008; van den Ende, 2003; van der Aa ; Elfring, 2002) Based on a scanning of identified articles in step 1 and 2, 74 articles falling into the scope of the review were identified. In a third step these articles were read through, categorized in terms of methodological approach, Academy of Management Journal (1), Creativity and Innovation Management (2), Economy, Innovations and New Technology (1), European Journal of Marketing (1), Industry and Innovation (1), Industrial Marketing Management (1), International Journal of Operations ; Production Management (1), International Marketing Review (1), Journal of Service Marketing (1), Management Decision (1), Personnel Review (1), Production ; Operations Management (2), Research Policy (3) and Scandinavian Journal of Management (1). 11 geographical focus and kind of service covered.

A brief summary of each article was also produced (see Appendix – Annotated Bibliography). Following the reading and summarization of these articles, in a fourth step themes in the literature were identified as to what was discussed as important enablers and aspects of new service development. Ten broad themes were identified, which provide the basic structure for this report and are discussed in more detail in section 5. In addition to the review of articles in scientific journals, dissertations within the discipline business administration and presented at Swedish universities between 1998 and 2008 were scanned to identify further sources within the scope of the review.

This search generated five additional sources (see Table 2). Table 2 Swedish dissertations between 1998 and 2008 DissertationResearch methodInterviews and focus groups Interviews Service sector Trade union Focus Bjorkman, Hans. (2005).

Learning from members. Tools for strategic positioning and service innovation in trade unions. Stockholm School of Economics, EFI. Gottfridsson, Patrik.

(2001). Smaforetags tjansteutveckling – en studie av hur smaforetag utvecklar individuellt anpassade tjanster. Stockholms universitet, Foretagsekonomiska institutionen. Magnusson, Peter. (2003). Customeroriented product development.

Experiments involving users in service innovation. Stockholm School of Economics, EFI. Matthing, Jonas. (2004). Customer involvement in new service development.

Karlstad University, Division for Business and Economics Service Research Center. Sonesson, Olle. (2007). Tjansteutveckling med personalmedverkan. Karlstad university, Fakulteten for ekonomi, kommunikation och IT.

Learning from members as a tool for service innovation in trade unions Development of customized services in small service firms Small service firms Experiments and interviews Telecommunication Customer involvement in new service development Experiments Telecommunication Customer involvement in new service development InterviewsFinancial services Front-line employee involvement in new service development 12 3 An overview of the field of research Research on the service workers’ role in new service development and service innovation has been carried out from different perspectives using different approaches and covered different kinds of services. Starting of with the applied methodologies, our review points at a slight preference for quantitative approaches using questionnaires or database data as a basis for different kinds of regression and cluster analyses. A majority of these studies deals with the broader (industry or national) patterns of service firms’ innovative behavior and the links between innovative behavior and performance. A little less than half of the identified studies were based on quantitative data. About one third of the articles and dissertations were based on a qualitative approach, mostly reporting single or multiple case studies. The rest of the articles were either combinations of qualitative and quantitative approaches or literature reviews/conceptual discussions (see Table 3).

Table 3 Number of articles using different research methodsResearch method Number of articles 37 Article references Quantitative (Alam, 2006a; Avlonitis et al. , 2001; Cainelli et al. , 2004; Camacho ; Rodriguez, 2005; Chan et al. , 1998; Czarnitzki ; Spielkamp, 2003; Damanpour ; Gopalakrishnan, 2001; de Brentani, 2001; de Jong ; Kemp, 2003; Ettlie ; Kubarek, 2008; Fay et al. , 2006; Froehle et al. , 2000; Hipp et al.

, 2000; Hull, 2003, 2004; Kelly ; Storey, 2000; Kristensson et al. , 2002; Kristensson et al. , 2004; Leiponen, 2005, 2006; Lievens et al. , 1999; Lievens ; Moenaert, 2000a, 2000b; Magnusson et al.

2003; Matear et al. , 2004; Matthing, 2004; Matthing et al. , 2006; Matthing et al. , 2004; Menor ; Roth, 2008; Oke, 2007; Osborne, 1998; Song et al. , 2000; Tether, 2003; Tether ; Tajar, 2008; Tsai et al. , 2008; van Riel et al.

, 2004; Wong ; He, 2005) (Abramovici ; Bancel-Charensol, 2004; Alam, 2006b; Anand et al. , 2007; Bjorkman, 2004, 2005; Bjorlin Liden ; Sanden, 2004; Blindenbach-Driessen ; van den Ende, 2006; Bower et al. , 2000; Fitzgerald et al. , 2002; Gottfridsson, 2001; Gustafsson et al. , 1999; Heusinkveld ; Benders, 2005; Kristensson et al.

2008; McCabe, 2000, 2002; McMeekin ; Coombs, 1999; Perks ; Riihela, 2004; Ramirez, 2004; Sonesson, 2007; Uchupalanen, 2000; van den Ende, 2003; van der Aa ; Elfring, 2002; van Riel ; Lievens, 2004; Verganti ; Buganza, 2005; Wyatt, 2000) (Froehle ; Roth, 2007; Magnusson, 2003; Storey ; Kelly, 2001) (Berry ; Lampo, 2000; de Jong and Vermeulen, 2003; den Hertog, 2000; Djellal ; Gallouj, 2006, 2007; Dolfsma, 2004; Gadrey ; Gallouj, 1998; Hargadon, 2002; Howells, 2004; Johne ; Storey, 1998; Lawson ; Samson, 2001; Mascitelli, 2000; Meyer ; DeTore, 2001; Miles, 2000) Qualitative, mostly case studies 25Quantitative and qualitative Literature review/theoretical discussion 3 14 13 Second, the research field may be discussed in terms of the kinds of services studied. While we have discussed a number of common key characteristics of services, they may vary significantly in character beyond these general similarities. Schmenner (1986) distinguishes between four types of service operations based on the degree of labor intensity (defined as the ratio of the labor cost to the value of the plant and equipment) on the one hand and the degree of customization and interaction with the customer on the other. These four types of service operations are: the Service factory, the Service shop, the Mass service and the Professional service (see Figure 2). Figure 2 Different kinds of service operations (based on Schmenner 1986) Degree of interaction and customization Low Service Factory Low • • • • Airlines Trucking Hotels Retail banking High Service shop • • • Hospitals Auto repair Other repair services Degree of labor Mass service • • • Retailing Wholsaling Schools Professional service • • • High Doctors Lawyers AccountantsFurther dimensions that are often used to differentiate different kinds of services include capital intensity, knowledge intensity, people connection, technology connection and customer participation (Edvardsson et al. , 2000).

Variations along these dimensions create different conditions for the new service development process. Looking at the research identified in this review a bias towards some service industries emerges. Telecom and IT services hold the top position. They are followed by financial services, including insurance and reinsurance services and knowledge intensive service firms. The dominance of these service sectors indicates a main focus on technology and knowledge intensive services while less knowledge intensive services are less well represented in the identified research (see Table 4). In Schmenners (1986) terminology, the current research has mainly focused on the extreme kinds of service businesses – i.

e. Service factories (low customization and degree of labour) and Professional services (high customization and degree of labour), leaving innovation in mass services and service shops less well studied. 14Table 4 Number of articles focusing on different service sectors Service sector Number of articles 14 Article references Telecom and IT (Kristensson et al. , 2002; Kristensson et al. , 2004; Kristensson et al. , 2008; Lawson ; Samson, 2001; Magnusson, 2004; Magnusson et al.

, 2003; Matthing, 2004; Matthing et al. , 2006; Matthing et al. , 2004; Ramirez, 2004; Tsai et al. , 2008; van den Ende, 2003; van Riel and Lievens, 2004; Verganti ; Buganza, 2005) (Alam, 2006a, 2006b; Avlonitis et al.

, 2001; Damanpour ; Gopalakrishnan, 2001; Lievens et al. 1999; Lievens ; Moenaert, 2000a, 2000b; McCabe, 2000, 2002; Menor ; Roth, 2008; Meyer ; DeTore, 2001; Sonesson, 2007; Uchupalanen, 2000) (Anand et al. , 2007; Blindenbach-Driessen ; van den Ende, 2006; de Jong ; Kemp, 2003; den Hertog, 2000; Gadrey ; Gallouj, 1998; Heusinkveld ; Benders, 2005; Leiponen, 2005, 2006; Wong ; He, 2005) (Bower et al. , 2000; Djellal ; Gallouj, 2006; Fay et al. , 2006; Fitzgerald et al.

, 2002; Osborne, 1998; Wyatt, 2000) (Bjorkman, 2004, 2005; Gustafsson et al. , 1999; Perks ; Riihela, 2004) (Chan et al. 1998; Kelly ; Storey, 2000; Oke, 2007; Storey ; Kelly, 2001; Tether, 2003; van der Aa ; Elfring, 2002) (Abramovici ; Bancel-Charensol, 2004; Berry ; Lampo, 2000; Bjorlin Liden ; Sanden, 2004; Cainelli et al. , 2004; Camacho ; Rodriguez, 2005; Czarnitzki ; Spielkamp, 2003; de Brentani, 2001; de Jong ; Vermeulen, 2003; Djellal ; Gallouj, 2007; Dolfsma, 2004; Ettlie ; Kubarek, 2008; Froehle ; Roth, 2007; Froehle et al. , 2000; Gottfridsson, 2001; Hargadon, 2002; Hipp et al. , 2000; Howells, 2004; Hull, 2003, 2004; Johne ; Storey, 1998; Mascitelli, 2000; Matear et al.

, 2004; McMeekin ; Coombs, 1999; Miles, 2000; Song et al. 2000; Tether ; Tajar, 2008; van Riel et al. , 2004) Financial services 13 Knowledge intensive services 9 Public services/health care Other 2 6 4 6 27 Several different sectors Not specified/ no specific Thirdly, we may comment on the geographical distribution of the studies identified in the review. It shows a dominance for Europe with 39 of the studies having been carried out in Europe, 3 in Asia and 2 in the US (although it may be expected that the majority of the “ not specified” studies are carried out in a US context) (see Table 5). 2 Aviation (1), trade union (2) and postal services (1). 5 Table 5 Number of articles focusing on different countries/regions Country/region Number of articles 10 Article references UK (Bower et al.

, 2000; Fay et al. , 2006; Fitzgerald et al. , 2002; Kelly ; Storey, 2000; McCabe, 2000; Oke, 2007; Osborne, 1998; Perks ; Riihela, 2004; Ramirez, 2004; Storey ; Kelly, 2001) (Bjorkman, 2004, 2005; Bjorlin Liden ; Sanden, 2004; Gottfridsson, 2001; Gustafsson et al. , 1999; Kristensson et al. , 2002; Kristensson et al. , 2004; Kristensson et al.

, 2008; Magnusson, 2003; Magnusson et al. , 2003; Matthing, 2004; Matthing et al. , 2006; Matthing et al. 2004; Sonesson, 2007) (Cainelli et al. , 2004; Czarnitzki ; Spielkamp, 2003; Hipp et al. , 2000; Lievens ; Moenaert, 2000a, 2000b; Tether, 2003; Tether ; Tajar, 2008; van Riel ; Lievens, 2004; Verganti ; Buganza, 2005) (Abramovici ; Bancel-Charensol, 2004; Avlonitis et al.

, 2001; Camacho ; Rodriguez, 2005; Leiponen, 2005; van den Ende, 2003; van der Aa ; Elfring, 2002) (Chan et al. , 1998; Uchupalanen, 2000; Wong ; He, 2005) (Damanpour ; Gopalakrishnan, 2001; Froehle et al. , 2000) (Matear et al. , 2004) (Alam, 2006a; Song et al. , 2000; van Riel et al. , 2004; Wyatt, 2000) (Alam, 2006b; Anand et al.

2007; Berry ; Lampo, 2000; Blindenbach-Driessen ; van den Ende, 2006; de Brentani, 2001; de Jong ; Kemp, 2003; de Jong ; Vermeulen, 2003; den Hertog, 2000; Djellal ; Gallouj, 2006, 2007; Dolfsma, 2004; Ettlie ; Kubarek, 2008; Froehle ; Roth, 2007; Gadrey ; Gallouj, 1998; Hargadon, 2002; Heusinkveld ; Benders, 2005; Howells, 2004; Hull, 2003, 2004; Johne ; Storey, 1998; Lawson ; Samson, 2001; Leiponen, 2006; Lievens et al. , 1999; Mascitelli, 2000; McCabe, 2002; McMeekin ; Coombs, 1999; Menor ; Roth, 2008; Meyer ; DeTore, 2001; Miles, 2000; Tsai et al. , 2008) Sweden 14 3 Rest of Europe 4 15 Asia US 5 3 2 1 4 30New Zealand Several different Not specified/ no specific Of which 5 are Swedish dissertations. Europe (3), Italy (2), Germany (2), Belgium (2), the Netherlands (2), Finland (1), France (1), Spain (1) and Greece (1). 5 Thailand (1), Hong Kong (1) and Singapore (1).

4 3 16 4 Innovation in service firms In this section we comment on patterns in how previous research has conceptualized service innovation in general terms. These patterns will serve as a background and reference point for the next section identifying a number of themes in the research on managing and organizing the service innovation process. Two conceptualizations are here discussed more deeply: typologies of different kinds of innovations in service firms and innovations in different service sectors. Additionally some comments will be made regarding studies of the performance benefits of innovation in service firms.

4. 1 Types of innovation in service firms Several of the articles suggest and use typologies of what is included in the concept “ innovation” in service firms. Some of these typologies specify in what part of the service firm innovation takes place. Hipp et al. 2000) make a distinction between three types of innovations: 1 Service innovations, which include innovation in the service offer per se in the form of introductions of new or significantly improved services; 2 process innovations, which include new and improved work methods in the process by which a specific service is produced; and 3 organizational innovation, which is not limited to the individual service production process but includes significant improvements in wider organizational structures or processes.

Similar typologies appear in other articles. In these the category “ service innovation” has also been referred to as product innovation (Damanpour ; Gopalakrishnan, 2001), service product innovation (Oke, 2007) and innovation in the service concept (den Hertog, 2000). These typologies however do not make a distinction between innovation in the process specific to a service and innovation in the organization as a whole. These two innovation types, process and organizational innovation, are instead collapsed and labeled process innovation (Damanpour ; Gapalakrishnan, 2001), service innovation (Oke, 2007) or innovation in the service delivery system/organization (den Hertog, 2000).

However, to simplify the discussion Hipp et al. ’s typology of service innovation, process innovation and organizational innovation can be said to capture the basics of the distinction of different types of innovation in the literature. Hipp et al. ’s (2000) typology can further be linked to three different modes of innovation activities identified by Tether ; Tajar (2008). Activities oriented towards the development of new products/services, which can be 17 linked to service innovation, are here allocate to the product-research mode of innovation.

Activities oriented to the development of new production processes, which thus can be linked to process innovation, are allocated to the process-technologies mode of innovation. Lastly, activities oriented toward organizational change and consequently linked to organizational innovation, are allocated to the organizational-cooperation mode of innovation. Tether ; Tajar call the two first modes two forms of technical innovation and the third a form of organizational innovation. The mode of innovation can also take the form of ad hoc processes, expert driven processes or formal processes (Gadrey ; Gallouj, 1998). Some articles focus mainly on process innovations and specifically innovations in technology supporting the production of services. For example, Bower et al.

(2000) investigate innovations in information and communication technologies in healthcare services and Wyatt (2000) examines attempts to develop information networks in government administration. Uchupalanan (2000) talks about innovations based on information technology, both in relation to service and process innovations. Other articles focus mainly on organizational innovation. McCabe (2000, 2002) has examined organizational innovation in the financial sector. He has focused on innovation in work organizations and specifically new standardized methods of management control such as TQM and BPR (McCabe, 2000). The service management model “ lean services” could be another more recent such method for management control in service firms.

Van der Aa ; Elfring (2002) argue that organizational innovations play a significant role in services, alongside more technical innovations, and identify three forms of organizational innovation: 1 multi-unit organizations, in which a management system used in one part of the organization is reproduced in multiple units; 2 new combinations of services, which implies the creation of new combinations of service activities, service parts and service segments; and 3 customer as co-producer, which implies redefining the role of the customer as co-producer of services. Some studies further stress the importance of innovations in the relationship with the customer. Such innovations may either regard the customer needs the service addresses or the interaction processes with the customer in service delivery. den Hertog (2000), for example, mentions innovations in the client interface as one type of innovation in service firms alongside service innovation, process innovation and organizational innovation. Futhermore, Osborne (1998) identifies four archetypes of change in social policy implementation of which three are seen as innovative. These 18 archetypes are further plotted out in a diagram as being distinct in the degree of change in service and degree of change in the relationship to the customers.

Total change includes new services and new relations to the customers. Expansionary change includes no change in services but new relations to the customers. Evolutionary change includes new services but no changes in the relations to the customers. Developmental change, which is not seen as innovative, includes no changes in neither services nor relations to the customers. Looking at patterns of innovative behavior in service firms Damanpour ; Gapalakrishnan (2001) have found that service firms, like companies in the manufacturing sector, emphasize the adoption of service innovations over process innovations.

Service innovations are adopted at a greater rate and speed than process innovations. Furthermore, it is likely that an innovation in the service is followed by a later innovation in the service process. In addition Oke (2007) found that service innovations are emphasized more in the telecommunications and financial sectors while process innovations are emphasized in the retail and transport sectors. Another common theme in previous research concerns different types of innovative strategies in service firms. Specifically it is emphasized that service firms vary according to the degree of innovativeness in their service development. Tether (2003) has, for example, found a significant difference between service sectors when it comes to the extent to which the service firms innovate and the extent to which they engage in R; D and collaborative arrangements targeted at innovation.

Based on this, another set of typologies distinguishes between innovations with different degree of novelty/innovativeness. The most commonly used typology distinguishes between six types of innovation which can be positioned on a scale from the one highest on innovativeness to the one lowest (see Avlonitis et al. , 2001 and Alam, 2006a): 1 new-to-the market services, which are new to everyone, 2 new-to-the-company services, which are new to the specific company but already offered by other companies, 3 new delivery processes, which can be compared to process innovations above, 4 service modifications, which include changes in existing services that do not change the core of the service, 5 service line extension, which means adding new services that are imilar to existing services, and 6 service repositioning, which means repositioning an existing service to meet new customer needs. 19 Others talk about a scale between radical innovation and incremental innovation (Oke, 2007) or really new and incrementally new services (de Brentani, 2001). According to the findings of Alam (2006) less innovative strategies, such as new to the company innovations, are lower in cost and less risky than highly innovative “ new-to-the-world services”, which is why non-radical innovations also often are seen as the most popular option. Contrary to this, Oke (2007) has found that the formal management practices supporting innovation in service firms tend to be biased toward the development of radical innovations on the expense of non-radical, incremental innovations.

Some articles have however focused mainly on less innovative new service development. Berry ; Lampo (2000) look at how service firms can be innovative with what they have through service redesign. They identify five approaches to service redesign: 1 2 3 4 self-service, where the customer assumes the role of producer, direct service, where the service is delivered to the customers’ location, pre-service, where the activities of the service are streamlined, bundled service, where multiple services are combined into a package and 5 physical service, where tangibles associated with the service are manifested. Ettlier ; Kubarek (2008) look at design reuse in both manufacturing and service firms. They found that unlike manufacturing firms service firms may produce novel services although the percentage of design reuse is high. To summarize, previous research makes a distinction between on the one hand different types of innovations in service firms and on the other new services with different degree of innovativeness.

From these studies we can draw the conclusion that it is relevant to talk about three types of innovations in service firms: service innovation, process innovation including innovations in supporting technology and organizational innovation. The degree of innovativeness can vary from radical/new-to-theworld innovations to incremental changes in the offered services or in supporting processes and organization. One distinction that we have not seen in the service innovation literature concerns the innovation patterns in smaller versus larger service firms. Only Gottfriedsson (2001) makes the distinction of firm size a relevant variable in his study. Distinguishing between service firms of various sizes when studying service innovation is relevant since it is reasonable to assume that small, medium and large service firms could have different approaches 20 toward organizing the innovation process. For that reason future studies should consider taking the size of the service firm into consideration.

. 2 Innovation in different service sectors Many of the previous studies claim that it is reasonable to assume that service firms in different sectors demonstrate different innovative behaviors. A few studies also show significant differences between service sectors. For example, Tether (2003) has investigated innovation patterns in five service sectors: wholesales trades, transport services, financial services, computer services and technical services. His results show significant differences between service sectors in the extent to which firms innovate and engage in innovative activities.

Camacho ; Rodriguez (2005) further identify three clusters of sectors varying in degree of innovation. They argue that service firms focusing on research and development, software and other computer activities are high-innovative. Service firms in telecom, financial services and other business services were found to be medium-innovative. Among low-innovative service firms they found wholesale, transport and public services. However, Tether (2003) also found significant differences within different sectors, which shows that despite differences between sectors they should not be seen as homogenous. More common than comparative studies are, however, articles that focus on innovation patterns in one specific service sector.

As illustrated in table 4, four sectors have received extra attention in the articles: financial services, knowledge intensive services, telecom and IT services and public services/health care. In most of these articles the pattern of service innovation found in one service sector is treated as potentially generalizable to all types of service firms. However, articles focusing on different sectors tend also to focus on different issues in relation to service innovation, partly depending on the specific dynamics of service delivery in that sector. Among the articles focusing on the financial service sector we have found that some focus on the existence of different types of innovation (Alam, 2006a; Avlonitis et al.

, 2001) and the dynamics of the innovation process including the adoption of different types of innovations (Damanpour ; Gopalakrishnan, 2001; McCabe, 2000, 2002; Menor ; Roth, 2008; Uchupalanen, 2000). Other studies emphasize the importance of communication (Lievens et al. , 1999; Lievens ; Moenaert, 2000a, 2000b), of using cross-functional teams (Avlonitis et al. , 2000) and of involving both customers (Alam, 2006b) and front-line employees in the development of new bank services (Sonesson, 2007). Within the group of articles focusing on knowledge-intensive business services other issues are raised. For example we found a number of articles 21 looking at knowledge creation and learning in the innovation process (Anand et al.

2007; Leiponen, 2005, 2006), and the process of commoditization of knowledge intensive services (Heusinkveld ; Benders, 2005). Further, some articles investigated drivers of innovative behavior of individual employees (de Jong ; Kemp, 2003) and the interface between the customer and service provider as a potential source of innovation (Gadrey ; Gallouj, 1998). Also general success factors for innovation in these kinds of firms, in comparison to those in other types, have been investigated (Blindenbach-Driessen ; van den Ende, 2006). Yet another theme focused on knowledge intensive business firms as potential facilitators of innovation in their client firms (den Hertog, 2000). Because of their reliance on employees’ expertise in everyday operations, knowledge intensive service firms are often researched with a focus on how to create and manage knowledge. This also seems to be the case in the reviewed literature which emphasizes both how to manage knowledge collectively and how to optimize the knowledge possessed by individual employees.

When focusing on the telecom and IT service sectors a number of articles investigate the benefits and dynamics of involving different actors in the service innovation process. This includes benefits of involving customers (Kristensson et al. , 2002; Kristensson et al. , 2004; Kristensson et al. , 2008; Magnusson, 2003; Magnusson et al.

, 2003; Matthing, 2004; Matthing et al. , 2006; Matthing et al. , 2004), the dynamics of involving and motivating employees (Ramirez, 2004; Tsai et al. , 2008) and the role of managers’ cognitive structures and communication attempts for service innovation success (van Riel ; Lievens, 2004). Other articles have stressed the benefits of making the service firm’s innovative capacity a part of the overall organizational capacity (Lawson ; Samson, 2001).

They also stress the relevance of looking at sources of innovation inertia in the service innovation process (Verganti ; Buganza, 2005). Also the use of different modes of governance in different phases of the lifecycle of telecom services has been investigated (van den Ende, 2003). Telecom and IT services are currently in a phase of rapid service development, which is partly driven by knowledgeable and demanding users. Against this background the focus on customer involvement and an overall organizational capacity for constant innovation makes sense.

However, the technical base in these services has meant a main focus on innovations in service offerings and their technical components. Less research has been carried out on innovations in organization and processes. Lastly, among the articles focusing on the public service sector quite a few have investigated problems associated with diffusing and implementing ITrelated innovations in healthcare operations (Bower et al. , 2000; Fitzgerald et al. 2002; Wyatt, 2000). Some of the articles focusing on public services 22 have contributed with typologies of service innovations specific to a special kind of social service, such as social policy formulation (Osborne, 1998) and elderly care (Djellal ; Gallouj, 2006).

The organizations in the public service sector, and specifically in healthcare, are often large with a hierarchical division of labor. In these organizations, the development of new services or new delivery processes takes place far away from many of those who in the end will work with the new service or process. Furthermore, the complexity of innovation in these settings is increased by the co-existence of numerous different professions. This makes the diffusion of innovations challenging. As a consequence the research on innovation in the public service sector has to a great extent focused on challenges when implementing innovations in the organization. To summarize, the main focus in previous research has been on the financial service sector, the knowledge intensive service sector, the telecom and IT service sector and the public service sectors.

As argued in section 3 of this report current research has mainly focuses on two of Schmenners types of services: 1 service factories with low customization and degree of labor, and 2 professional services with a high customization and degree of labour. Services with a high degree of labor intensity and low customization (e. g. mass services such as retailing and wholesale) and those with high customization and low degree of labour intensity (e.

g. auto-repair, hairdressers) have gotten less attention. 4. 3 Innovation performance in service firmsA few studies comment on the effects of innovating on the performance of service firms. Storey ; Kelly (2001) investigate how new service development activities are evaluated. They found a difference between highly innovative and less innovative firms.

They show that “ truly” innovative firms measure new service development performance along a number of softer internal dimensions such as the cost and speed of development and the effectiveness of the process. In contrast less innovative firms most often use solely financial measures to evaluate their service development activities. Storey ; Kelly also show that even though new services are an important source of revenue, firms are often not satisfied with their ability to develop new services. Other studies evaluate service firms’ innovative performance based on both financial measures and productivity measures. Cainelli et al. (2004) explore the relationship between innovation and financial performance in service firms.

Their results show that innovating firms out-perform non-innovating 23 firms in terms of productivity levels and economic growth. Productivity was also found to be linked to the amount of innovation expenditure. Matear et al. (2004) come to a similar conclusion in a study of performance effects of different sources of market advantage. They found that new service development, alongside brand investment, contribute to the attainment of positional advantage and consequently to service firms’ performance.

These studies thus show that being innovative can have positive effects on service firms’ performance. However, they do not make a distinction between different types of innovations and only to a limited extent between firms with different levels of innovativeness. 24 5 Managing the service innovation processThe focus of the review is to examine what is known about the role of service workers in the innovation process and the organizational and management practices by which their knowledge may be exploited in the development of new services. When focusing on managing and organizing for innovation in service firms the service innovation process is central. The service innovation process is in many studies divided into different phases (see e.

g. Gottfriedsson, 2001; Sonesson, 2007). In an initial phase ideas for new services or processes are generated and chosen in line with a strategic plan for innovation. Thereafter project teams for designing the innovation are assigned and the innovation process is formalized. In a third phase the new service or process is designed and tested.

Finally the innovation is implemented which also includes training employees to deliver the service and commercialization and launch on the market. How to manage the service innovation process is discussed in a large share of the articles. Among these we have identified a number of partly overlapping themes related to managing the service innovation process. These themes are: 1 2 3 4 5 6 7 8 9 10 Managing knowledge Managing a network of relationships Formalizing the innovation process Cross-functional involvement Involving customers Involving front-line employees Creating a climate for innovation Communicating and framing innovation Human Resource Management Internal politics and inertia As illustrated in Figure 3, the management of knowledge stands in the center of the innovation process since achieving innovation to a large extent involves creating and managing knowledge in order to create something new. The surrounding eight themes represent tools to use in order to manage knowledge and become innovative in the service innovation process. The tenth theme (Internal politics and inertia) touches upon problems that can 25 hinder or complicate the service innovation process.

The research within these different themes will be reviewed and discussed below. Figure 3 Illustration of central themes on managing the service innovation process Internal politics and inertia Human Resource Management Managing a network of relationships Formalizing the innovation processThe Service Innovation Process Communicating and framing innovation Cross-functional involvement Managing knowledge Creating a climate for innovation Involving frontline employees Involving customers 5. 1 Managing knowledge towards innovation A big part of being innovative is to be able to manage and create knowledge that results in new ideas for services or organizational practices. Hargadon (2002) talks about “ knowledge brokering” as a practice that explains how some organizations are able to routinely recombine their past knowledge in new ways and thus be continually innovative.

He distinguishes between a number of steps in knowledge brokering: 1 the potential inherent in recombinant innovations where existing ideas, artifacts, and individuals are drawn from across many small worlds, 2 the bridging strategies that can expose organizations to the local resources of these different worlds, 3 the learning activities that bring knowledge of these resources into organizations, 4 the linking activities that recognize how knowledge and learning in one context could be valuable in another, and 5 the building activities that construct new networks around the emerging innovations. 6 In conclusion, managing knowledge towards innovation involves identifying ideas and valuable knowledge already present in the organization, encouraging the sharing of ideas and knowledge and facilitating knowledge creation and creative processes. The most common issue when investigating the role of knowledge management in service innovation processes is how to balance the management of knowledge held by individuals and knowledge held collectively in an organization or a project team. This issue also relates to whether tacit (experience based and unarticulated) or explicit (codified and articulated) knowledge contributes more to accomplishing service innovations. Mascitalli (2000) argues that breakthrough innovations result from exploiting tacit knowledge possessed by both individuals and project teams.

The challenge is to capture the creative power of this tacit knowledge, something which can be achieved if the members of the innovation design team are emotionally committed and personally involved in the innovation process. The organization thus needs to facilitate this personal commitment by a suitable atmosphere and supporting practices. Mascitalli suggests two techniques which can serve as catalysts: using prototypes to support breakthrough thinking and sharing knowledge face-toface. Leiponen (2005; 2006) emphasizes the potential contribution of collective knowledge in the service innovation process. In her study of knowledgeintensive business service firms in Finland she shows that collective application of knowledge is more likely to lead to innovation than individual application of knowledge (Leiponen, 2005).

According to Leiponen, collectively held knowledge includes both codified knowledge in relation to service solutions and team-based competences and procedures. Relying solely on knowledgeable and creative individuals to come up with innovative ideas might hamper innovation (Leiponen, 2006). Leiponen also shows that service innovations are more likely to come from tacit collective knowledge while explicit collective knowledge leads to service improvements (Leiponen, 2006). Furthermore Leiponen (2005) argues that the likelihood of accomplishing innovation is higher if efforts are made to acquire external knowledge from, for example, customers and competitors than if innovation efforts are based only on internal incremental learning. One way to acquire external knowledge, and hence support service innovation, is to hire highly educated employees who can bring knowledge into the organization. Anand et al.

(2007) have investigated how structures supporting knowledge and innovation can emerge and become embedded in knowledge intensive firms. They emphasize four elements and how these are managed as crucial 27 for building innovative knowledge structures in knowledge intensive service firms: 1 professionals with a socialized agency who can act on behalf of the company, 2 the presence of differentiated expertise and a constant development of new knowledge, 3 creating a defensible turf where there is internal and external legitimacy for the new practice area and 4 organizational support through available resources in the form of personnel and political support. As a conclusion, they claim that building and using internal networks of practitioners and external networks of customers and the market is beneficial for the emergence of innovative knowledge structures. To summarize what previous studies on knowledge management toward innovation in service firms have said it is important to exploit both collective and individual knowledge and both explicit and tacit knowledge in the service innovation process.

Managing the innovation process thus involves managing the potential knowledge input and integration of actors in an internal and external network of relationships. Internally this involves including representatives of different functions in the organization such as R; D experts and service line employees in for example a project team. Externally this may involve including representatives from existing or new customer groups. As we will see previous research has suggested including front-line employees in the innovation process as mediators between customers and the rest of the service innovation process.

As mentioned above we have put managing knowledge as the most central theme in the innovation process since all the other aspects of the service innovation process can be seen as tools for motivating and facilitating the sharing and creation of knowledge and ideas. Managing knowledge towards innovation is thus supported by the practices discussed below: formalizing the knowledge management and innovation process, cross-functional involvement in the innovation process which includes involving customers and front-line employees, creating an organizational climate for innovation, communicating and framing innovations appropriately, and motivating through the appropriate use of Human Resource Management. 5. 2 Managing a network of relationshipsIn previous research service innovation has been seen as taking place in a network of relationships with different actors. This is a theme that has been emphasized by a number of studies.

In 2000, Miles identified a move in the 28 service innovation research away from studying innovations in individual service firms towards studying service innovations as created in innovation networks and systems (Miles, 2000). It has been emphasized that service firms that want to be innovative need to think of themselves as part of innovation networks. Service firms can interact and exchange resources, knowledge and ideas with actors in their environment such as customers and innovation partners. den Hertog (2000) talks about a symbiotic relationship between service firms and their clients.

Through these relationships service firms can function as co-producers of innovation with their clients. This is particularly relevant for those knowledge intensive business services and professional service firms which act as advisors or knowledge providers for other firms, including service firms. Czarbutzki ; Spielkamp (2003) have found that these kinds of firms often have a sound innovative capacity as they possess knowledge, creativity and skills in marketing and management, all necessary for successful innovation. In this respect they suggest seeing business service firms as bridges for innovation as they take on the role of knowledge brokers for client firms. But at the same time as some service firms help clients become innovative, customers have been found to be important contributors to innovation in service firms. As we will see in a later section, actively involving customers has been used as part of the innovation strategy in service firms.

As coproducers of the services consumed customers also have part in coproducing service innovations. Furthermore they can contribute to service innovation by providing ideas for new services or service improvements (Gustafsson et al. , 1999; Magnusson et al. , 2003; Matthing et al. , 2004; Kristensson et al. , 2008).

Involving font-line employees, who have the daily contact with customers, as actors in the service innovation network has been suggested as one way of incorporating the ideas of the customers in the innovation process. Research has also argued for the importance of communication between different actors in the innovation network. Lievens et al. (1999), who have studied financial services in banks, conclude that the close cooperation that is needed for innovation and learning to take place must involve strong integration and a central position within a communication network. They suggest that a potentially important condition for obtaining a good learning environment is to focus on boundary-spanning communication and individuals with a position in loosely coupled networks. Also internally in the service firm innovation can be seen as a result of the contribution and interaction of a network of different actors and practices.

In a study of innovation in the British healthcare sector Fitzgerald et al. (2002) 29 show that innovation and its diffusion depends on the interlocking interactions of actors and context. In order for innovation to take place the knowledge of a number of internal actors is needed. Some studies suggest that in order to facilitate constant innovation in a service firm the network of actors and practices needs to be organized as a formalized process (Chan et al. , 1998; Foehle et al.

, 2000). The goal is to make the service innovation process predictable, manageable and coordinated. As we will also see below, service firms often use formalized cross-functional teams as a tool for coordinating actors and knowledge in the service innovation process (Hull, 2003; Fay et al. , 2006). Managing a network of relationships as part of the service innovation process can also potentially be supported by an innovative climate.

Previous studies suggest that in order to become innovative there is a need for an organizational climate that fosters communication and cooperation between different internal functions and with customers and other external actors (Mascielli, 2000; McCabe, 2002). Studies have also suggested that communication and cooperation initiatives can be further supported by Human Resource Management practices such as rewards and career structures (McMeekin ; Coombs, 1999; de Jong ; Kemp, 2003). To summarize, previous research has pointed to the need of seeing the innovation process as taking place in a network of relationships between both external and internal actors. In order to manage this network innovative service firms should consider how to involve these different actors in a formalized and structured way. Also knowing how to communicate and create a climate in which actors feel motivated to contribute and be creative is central. 5.

3 Formalizing the innovation process A number of studies have focused on the presence and need for formalization of the innovation process in service firms. One benefit of a more formalized innovation process is claimed to be a more predictable and manageable process. Research has however shown that formalization of the innovation process is relatively rare in service firms, specifically in comparison with manufacturing firms. Kelly ; Storey (2000) have investigated whether service firms use systematic procedures to generate and screen ideas for new services. They found that only half the sample of firms in different service sectors in the UK has a formal new service development strategy.

Chen et al. 1998) come to similar results in a study of service firms in Hong Kong where they find that the majority of the firms do not have an established system to control the innovation process. Instead of formalized processes to support innovation the service development 30 attempts are often ad hoc and integrated in the everyday operations (Dolfsma, 2004; Kelly ; Storey, 2000). Gottfriedsson (2001) further argues that specifically in small service firms the service development process is largely unstructured and organized informally around specific individuals in the service firm. These conditions support the development of customized services in small service firms.

As a result, unstructured attempts to idea screening and generation tend to fail to support the creation of service innovations (Kelly ; Storey, 2000). Chan et al. (1998) also conclude that the lack of established systems is linked to an attitude among managers to confine their service development to incremental or distinctive innovations and to not attempt to develop breakthrough innovations. Some studies have further shown proven benefits of formalization. Foehle et al. 2000), for example, have shown that a more formalized innovation process can contribute to increased speed of new service development and that formalized cross-functional innovation teams in particular positively influence the effectiveness of service firms new service development efforts.

Also de Brentani (2001) has identified formal and planned programs for launching service innovations as a success factor governing the outcome of new service projects. A few studies have been a little more specific about what a formalized innovation process should include. Oke (2007), who has investigated management practices in different types of innovations in the UK service sector, lists the following formal management practices as important for supporting innovation: an innovation strategy, routines for creativity and idea management, appropriate practices for Human Resource Management, routines for managing and implementing service portfolio and new service selection. Hull (2004) stresses the importance of a system that organizes people from diverse functions, a defined common process and available tools for them to use.

Furthermore, Foehle ; Roth (2007) emphasize that an important part of formalizing the innovation process is to provide key resources for innovation. This includes investing in the intellectual, organizational and physical resources necessary to fully exploit the diff