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**New Service Development and implementation –  
Action research for a KIBS firm**

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**ABSTRACT**

**Aim** - This study answers to the questions of “how to create a new service development process for a KIBS firm” and “how to implement a new service in a KIBS firm?” The thesis takes a close look at the creation and implementation of a KIBS firm’s service development process.

**Framework** - The study covers the New Service Development (NSD) and Knowledge Intensive Business Services (KIBS) literature. The main focus is on the NSD process and its implementation. The NSD section summarizes the four-step process of developing new services and the KIBS section covers key characteristics of Knowledge Intensive Business Services. The model derived from the literature combines these key theories into a nine-point entity in which the NSD process is created, implemented, and maintained utilizing the four KIBS characteristics. The model is used to analyze the empirical section and to present the main findings of the study.

**Methodology** - The empirical section of the study is a single case examining an entrepreneurial society operating under the biggest university in Finland and the city of Helsinki. The qualitative data analysis is carried out with a theory-driven content analysis and the data consist of three interviews and workshop feedback questionnaire answers. The study utilizes the action research method and is exploratory in nature.

**Findings** - The findings of the study revealed eight aggregate classifications that summarize the creation and implementation of the NSD process at the KIBS firm. The NSD process is created in the case company by *Designing the NSD process by identifying the need for structured services for defined customer segments, Project authorization & analysis and benchmarking existing practices, Internal and external development through training and marketing efforts and Rapid launch to gain user feedback for further development maintained by management.* In addition, during the development phase of the process, enhancing cooperation with the head organization and the effective allocation of internal resources were seen as crucial. The implementation of the process is concluded with *Accumulation of knowledge and service readiness with “learning by doing” training, Enhancing process innovation and innovation culture, Service-related collaboration with internal and external partners and Internal co-creation for service refinement.*

**Conclusion** – The thesis is concluded with theoretical and managerial implications and suggestions for further research around the topic. The managerial implications focus specifically on the means of managing NSD processes, and further research is proposed in relation to the operations of entrepreneurial societies. Finally, the limitations of the study are presented.

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**KEYWORDS:** Knowledge Intensive Business Services, New Service Development, Service Management, Service Innovation, Service implementation

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## 1 Introduction

Different forms of entrepreneurship are emerging rapidly and there is a vast demand for various entrepreneurial support services. Such services can be found in Finland both as chargeable and for free. The services often focus on mentoring, sparring, networking, lectures, courses, and counselling on a variety of entrepreneurial topics, such as crystalizing a business idea, funding, marketing, and finding the most appropriate co-founders, employees, and startup communities (TE-palvelut, 2022). Entrepreneurial societies operating under universities offer entrepreneurial services of various levels and scopes to the university community and to people who are considering entrepreneurship or already maintaining business operations. Entrepreneurial societies can be considered knowledge-intensive business services offering firms, as they operate as part of the academic university environment where new knowledge, university spin-off firms and innovation are easily generated and disseminated in collaboration and co-creation with local and regional actors (Savic et al., 2020; Nurmi & Paasio, 2007). KIBS companies operating under the auspices of the university can be recognized as centers of multidisciplinary expertise and links to an extensive entrepreneurial ecosystem (Corsi et al., 2019). Supporting and promoting a wide range of entrepreneurship strengthens the market penetration of new solutions, products and services, and especially academic entrepreneurship can accelerate the creation of truly impactful societal solutions for the future.

This entrepreneurial know-how that is carried by entrepreneurial societies and realized in the form of various entrepreneurial services is not always identified or utilized despite its above-mentioned potential (Nurmi & Paasio, 2007). The societies providing such services must make themselves visible, potentially with the community's support so that the services can be found, and individuals can benefit from the often-free support. However, the challenges for new entrepreneurial service development may lie in the operating models of the entrepreneurial communities, where mostly part-time students or recent graduates work on a project basis with rather limited resources.

The clarity of the service development process, identifying and tackling potential resource challenges, and implementing and maintaining the finalized services play a significant role in maintaining entrepreneurial know-how and sharing it among customers.

### **1.1 Motivation for the study**

Creating memorable customer relationships, experiences and significant value-producing services are the cornerstones of an increasingly service-oriented society (Gupta & Vajik, 1999). There is a vast number of service companies available, and in recent decades, many firms have sought to servitize their existing product lines to meet the growing customer demand, expand their earning models, and cultivate deeper and more holistic customer relationships. Selling service solutions that can be tailored to match the customer's needs has become rather mainstream (Fang et al. 2008). In the creation of new services, the service development process has been found to play a key role in the success of holistic service development. However, to succeed, firms carrying out NSD activities require an accurate understanding of the service that is being created, its users, its providers, and the operating environment (Zomerdijk & Voss, 2011). With a wide range of process models available, companies can easily stumble into the pitfalls of service development, as piloting and prototyping services can become more challenging than in new product development (Asikainen, 2013).

Knowledge intensive business services covering traditional expert services and technology-related services are strongly related to increasing firms' competitiveness with intangible know-how and expertise that can be carved into a vast variety of services (Huggins, 2011). In the 21st century, most knowledge intensive business services providing sectors have had a clear growth trajectory in Finland (Alanen, 2008). Overall, KIBS companies are playing an increasingly essential role in shaping the global economy with their characteristic innovation and knowledge focus. Accelerating global competition has paced companies' efforts to create and offer innovative solutions and specialize in various fields (Huggins, 2011). Consequently, it is topical and interesting to study how a new service development process is created and implemented in a KIBS environment.

## 1.2 Research gap

Both new service development and knowledge intensive business service research are relatively novel disciplines that are lacking clear definitions or research trends (Biemans et al. 2016 & Miles et al., 1995). In KIBS literature, the research tends to put heavy focus on the significance of knowledge and innovation as drivers and enablers of knowledge intensive business services (Miles et al. 1995; Doloreux & Frigon, 2020.; Asikainen, 2015). Innovation and knowledge are studied either together or separately, focusing on e.g., innovation patterns and types, innovation performance, strategies, knowledge absorptive capacity and innovation knowledge (Asikainen, 2015.; Doloreux & Shearmur 2010.; Tseng et al. 2011 & Zieba et al. 2017). The KIBS literature also includes studies related to regional collaboration and co-creation, either internally between the company or externally with customers and other stakeholders (Santos & Spring, 2015.; Santos-Viljande et al. 2011.; Wyrwich, 2019. & Savic, 2020). From the perspective of delimiting the research topic, it is certainly logical that these KIBS characteristics are examined separately, but a study on their holistic interactions and impact on different areas of business was difficult to discover.

However, New Service Development is addressed from a number of perspectives. Research topics are limited in the literature to e.g., customers, resources, service innovation, NSD strategies, and frameworks to encompass the topic (Froehle & Roth, 2007.; Hyde et al. 2016; Edvardsson et al. 2012; Johnson et al. 2000). Models and frameworks from different perspectives and circumstances can be found widely, but they easily wind up covering only a specific industry, region, or other tightly defined sector, which can make the generalizability and usability of the NSD research challenging. In the NSD discipline, questions like “What is the uniform definition of the NSD process?” and “How to clearly differentiate the NSD research from the NPD discipline?” are left unclear (Biemans et al. 2016).



These two disciplines have previously been studied together by, for example, combining a strategic lens with KIBS companies' NSD competencies, examining knowledge foundations in KIBS companies' NSD processes and examining the organizational culture of KIBS companies in connection with NSD performance (Krupskaya & Pina, 2022; Liu, 2011 & Liu, 2009). However, research that broadly combines NSD and all the KIBS characteristics that are generally widely visible in the studies (knowledge, innovation, collaboration and cocreation) was challenging to come across. Therefore, this study examines the creation and implementation of an NSD process in a KIBS firm through the four KIBS characteristics. The KIBS characteristics are mirrored specifically in the implementation of the process that first focuses on the organization, and then the customers and other stakeholders. This study brings together the creation, implementation, and maintenance of an extensive NSD process in a KIBS entity that has not been previously studied in such a context.

### **1.3 Research question and objectives**

This study combines the theoretical orientations of NSD and KIBS into a coherent entity by first examining and creating an NSD process and second, by implementing it in a KIBS environment.

This research answers to the following research questions:

*How to create a new service development process for a KIBS firm?*

*How to implement a new service in a KIBS firm?*

The research objectives that guide and deepen the topic and describe the goals of the study are:

- To create a framework for developing and implementing a new service into a KIBS firm's core offering
- To co-create and carry out the new service development process together with the KIBS firm

By answering these questions and meeting the research objectives, this research creates a new approach to the service development process and its implementation in a unique KIBS company. Combining theoretical and empirical data, the framework of the study provides a new lens to the process of creating, implementing, and managing new services.

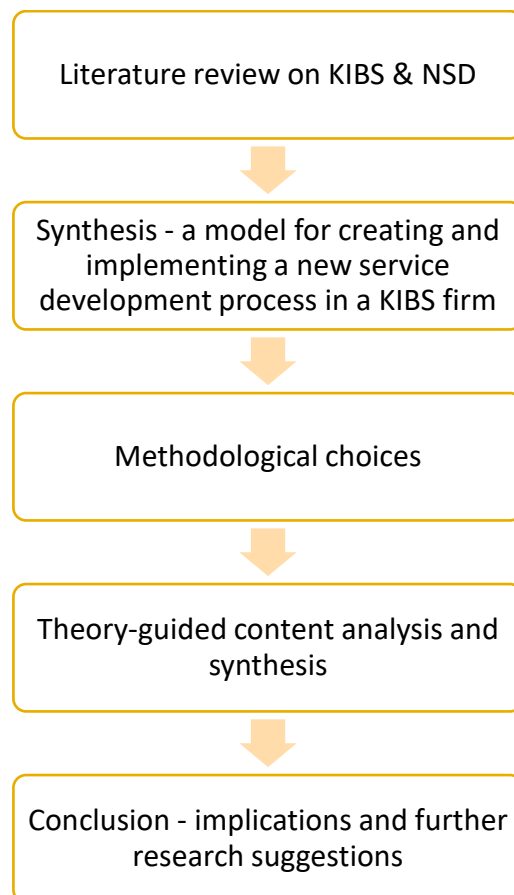
#### **1.4 Structure of the thesis**

This study can be divided into five main sections. After the introduction to the topic, key literature is addressed from perspectives relevant to the study in the second section. The literary review is divided into two parts. First, Knowledge Intensive Business Services (KIBS) are presented with its central definitions. This part discusses the different types of KIBS and what is not classified as KIBS. Then, key characteristics to KIBS and its processes are discussed. The characteristics: knowledge, innovation, collaboration, and co-creation, are assessed in the light of different studies. Finally, obstacles that can be detected in KIBS processes are articulated. The second theoretical part addresses new service development (NSD), which operates at the heart of this research. NSD is first defined and examined from the discipline's historical perspective. Next, the NSD process and its critical aspects are outlined. Then, key dimension in NSD practices are presented with an outlook to the discipline's different approaches. This part paints a picture of the fragmentation of NSD research and the numerous viewpoints to the topic. Finally, the aspects to managing NSD processes are introduced.

At the end of the literature review, the two disciplines, KIBS and NSD are combined. In this synthesis section, the main points addressed in both theoretical parts are summarized and a framework that works as a practical answer to the research questions is presented. The framework is the lens through which the contents of the following thesis sections are examined. In the third main section of the thesis, the methodological choices of the study are brought forth. This section comprises the philosophical assumptions, research strategy and method.

Additionally, the case company and its operations are explained, followed by data collection and analysis matters. The chapter is concluded with an evaluation of the validity and reliability of the study.

The fourth main section discusses the results of the empirical part of the study. The findings from the two data sources are first considered separately as their own entities. The findings are presented under aggregate dimensions that are compiled into illustrative tables. Finally, the aggregate dimensions are combined into the framework created in the synthesis of the literature review, which summarizes the most crucial results of the analysis. The last main section concludes the entirety of the thesis and provides further theoretical and managerial implications. This section also offers suggestions for related research in the future and critically discusses the limitations of the study. The thesis structure is compiled in figure 1.



**Figure 1** Structure of the thesis.

## **2 Literature review**

The first section of the literature review covers Knowledge Intensive Business Services, which will be referred to hereinafter as KIBS. First, the definitions of KIBS are introduced, then the characteristics typical of KIBS are reviewed, followed by the challenges that can be associated with KIBS processes. The second part of the literature review covers the concept of New Service Development. At the end of the literature review, the theoretical sections are combined to conclude how a new service development process is carried out and implemented in a KIBS firm.

### **2.1 Knowledge Intensive Business Services**

There is no general unifying definition for KIBS, but its totality is described, *inter alia*, in the definitions set out hereafter (den Hertog, 2000). According to Miles et al (1995), Knowledge Intensive Business Services (KIBS) can be described as services that require professional insight to function. Miles et al (1995) claim that the professional skills may be related, e.g., to research, engineering expertise, and other fields requiring deep professional know-how. KIBS services strongly involve the sharing of acquired professional skills and expertise, either in the form of products or services (Miles et al., 1995; Zieba et al., 2017). According to Miles et al (1995), the services of KIBS are also determined by the fact that they are traditionally aimed towards other companies, public sector actors or entrepreneurs. This interpretation is confirmed by Asikainen (2013), according to whom the purpose of KIBS is to support customers' functions, processes, and performance by providing innovative market or science-based solutions to customers' unique challenges.

In the KIBS definition by Miles et al (1995), services can be compartmented into two service groups: common professional services (P-KIBS) and novel technology-related services (T-KIBS). The first category (P-KIBS) might include e.g., marketing services, consulting services, legal advice, and accounting.

These traditional P-KIBS services are thus related to in-depth knowledge of administrative systems and general business relationships (Doloreux & Shearmur, 2010, p. 612). Miles et al (1995) claim that the second service category (T-KIBS) includes design, training, software, research and development consulting, technical engineering, and environmental services, all of which are determined by the use of new technology. T-KIBS companies combine special expertise with technological know-how and the sharing of technology-related information in the form of products or services (Doloreux & Shearmur, 2010, p. 612).

Thus, KIBS services are not related to, health services, educational services, retail, hospitality or tourism, or any other area that traditionally includes clear ongoing service frameworks (Miles et al., 1995, p. 31-32). According to Doloreux & Shearmur (2010), KIBS indicate business activities that are inherently knowledge-intensive and provide its customers with services that do not involve a specific repeatable routine.

<b>P-KIBS</b>	<ul style="list-style-type: none"> <li>• Professional services</li> <li>• Services based on expert knowledge of business administration and business relations</li> </ul>
<b>T-KIBS</b>	<ul style="list-style-type: none"> <li>• Technology related professional services</li> <li>• Producing and transferring knowledge regarding technology</li> </ul>
<b>Non KIBS</b>	<ul style="list-style-type: none"> <li>• Traditional service framework utilizing firms</li> <li>• Hospitality, education, health services</li> </ul>

**Figure 2** KIBS definition (Miles et al., 1995).

KIBS services are customized for clients and their production often involves cooperation between the customer and the service provider in connection with service design and process production.

To provide customized special solutions to their customers, KIBS companies utilize thorough comprehension of the customer's organization, business models and strategy to produce service solutions that are suitable for the customer's processes (Cabigiosu & Campagnolo, 2018, p. 595).

### **2.1.1 Key features in KIBS**

The most essential feature of KIBS companies is the creation of **knowledge**, and innovation through knowledge. Knowledge is created through learning experiences acquired in a variety of ways. Learning can take place through hands-on experimentation, observation, communication, training, or by experimenting (Miles et al., 1995, p. 5). According to Miles et al., (1995), the sharing of learned knowledge requires receptivity and equivalence of the level of existing knowledge from the perspective of both the distributor and the recipient of knowledge. Zieba et al., (2017) suggest that KIBS firms increase their innovation-related knowledge in two ways: passively or actively. This may mean that innovations are generated as a by-product of day-to-day work tasks, or that new knowledge and ideas are actively collected internally or externally, utilizing employees, research, and development operations or alternatively, customers and other stakeholders (Zieba et al., 2017, p. 285).

In-depth knowledge is a resource that serves as the basis for all KIBS operations, new products, and services. In KIBS, existing information is combined with new information and thus new, shared knowledge emerges and can be transformed into products or services (Doloreux & Shearmur, 2010; Amara et al., 2016). KIBS firms can either use previously collected knowledge to support its main activities and operations or create new knowledge by solving customers' multidisciplinary challenges. KIBS companies help their customers expand their knowledge potential and new knowledge can be created in cooperation through KIBS and customer's joint processes (Zieba et al., 2019, p. 1154; Wyrwich, 2019, p. 327).

As KIBS firms employ trained professionals in their respective fields, the generation and production of knowledge is commonly in the hands of individual experts (Doloreux & Shearmur, 2010, p. 607). Thus, Doloreux & Shearmur (2010) argue that the process of sharing information internally and externally with customers and other stakeholders in KIBS firms determines the foundation of knowledge. Tseng et al., (2011) studied the importance of three knowledge sources, knowledge supply, spill, and absorptive capacity, for innovation performance in KIBS. Tseng et al., (2011) found that knowledge supply, the ability to actively utilize created and internalized knowledge and absorptive capacity, the ability to identify and internalize external knowledge into internal knowledge sources to maintain and develop the company's competitiveness are positively related to firms' innovation performance.

Another key characteristic KIBS feature is **innovation**. Innovations traditionally arise from the organization's internal development work and aim to respond to changes in the business environment (Santos-Viljande, 2013, p. 88). According to Cabigiosu and Campagnolo (2018), innovations can be compartmentalized into product and process innovations. Product innovations involve a novel product or service catered to customers, while process innovations involve a new way of producing and distributing products or services to an organization's operations (Cabigiosu & Campagnolo, 2018, p. 595).

KIBS firms can adopt different roles in the emergence of innovation (Doloreux & Shearmur, 2010, p. 609). According to Doloreux & Shearmur (2010), KIBS firms have six roles in innovation processes. KIBS firms can operate as a facilitator of innovation when solving the challenges of a customer organization, as a messenger of innovation from one organization to another, a developer of innovation, and utilizing new and old knowledge, generating intangible and tacit knowledge, and creating own innovations through product, service, and internal organizational development (Doloreux & Shearmur, 2010, p. 609). According to Asikainen (2013), KIBS can also produce product, process, and organizational innovations as a by-product of service innovation.

When creating service innovations, minor changes and modifications can create a major impact on the outcome of services. Developments and changes can affect operations around the service itself: distribution, connectivity, customer collaboration and co-creation, or alternatively service quality and technology choices (Asikainen, 2013, p. 81).

Doloreux et al., (2018) claim that KIBS firms focusing on different innovations also utilize different ways of knowledge retrieval to support the specific innovation type. KIBS firms promoting marketing innovation focus on retrieving external information and KIBS firms focusing on product innovations, utilized external partnerships in the acquisition of innovation knowledge, which helps to collect practical product information and other technical information. The development of different innovation strategies requires an understanding of the company's internal operating models and goals. The formulation of innovation strategies requires access to diverse external information, be it external partners or research data (Doloreux et al., 2018, p. 526). According to Rodriguez et al., (2016), when formulating innovation strategies, managers should consider which activities and different knowledge retrieval methods support which innovation strategy.

Utilization of knowledge and maintaining its high level is an increasingly crucial means of competition and attracting entrepreneurial skills in companies (Fernandes & Ferreira, 2013, p. 462). Fernandes & Ferreira (2013) claim that new knowledge and innovations are traditionally produced in research institutions such as universities, and cooperation between regional KIBS companies and universities can support the development of new innovations and knowledge transfer. The importance of KIBS in generating social added value of companies has grown, and KIBS companies are increasingly seen as messengers of innovation, development, and information sharing (Fernandes & Ferreira, 2013, p. 463).

Another distinct feature that has been found emerging in KIBS is the **collaboration** between different actors. The location of KIBS companies or institutions has been claimed essential for the emergence and cultivation of innovations in certain areas.

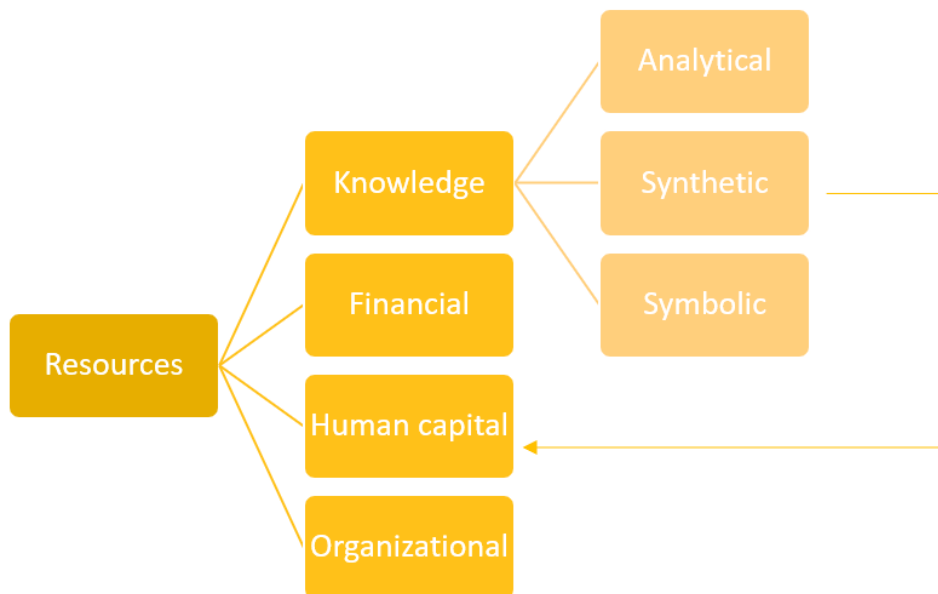


Collaboration around KIBS innovations can play a significant role in different regions' competitive position (Fernandes & Ferreira, 2013, p. 463). Regional collaboration is strongly linked to the dissemination of academic knowledge from research institutions, which consist of three levels: dissemination of knowledge generated in universities and collected by professionals in a given field, dissemination of technologies through partnerships between universities and companies, and dissemination of knowledge through research centers such as laboratories, libraries and other traditional university structures (Fernandes & Ferreira, 2013, pp 464).

KIBS firms might be located in regional concentrations (Shearmur & Doloreux, 2015). Savic et al., (2020) claim that forming KIBS partnerships and strengthening business relations is more effortless when KIBS firms and other like-minded actors are located in the same area. Business relationships can deepen when both formal and informal encounters arise from a common location (Savic et al., 2020, p. 807). According to Asikainen (2013), KIBS firms are essential from an economic point of view, as they support the national research and innovation system and can accelerate innovations in the public sector. Universities are large local and economic actors that provide learning services, attract students, employ large numbers of people, and demand business and services to support their operations (Felsenstein, 1996, p. 45). Fernandes and Ferreira (2013) argue, that the wider the university concentration, the greater the impact and economic development in the region. According to Hidalgo & Herrera (2020), universities are essential players in knowledge development, training, promoting scientific innovation and joint developing with companies of various fields. Doloreux and Frigon (2020) claim that there is a positive relationship between universities and P-KIBS innovations, portraying the importance of tacit knowledge transition between KIBS firms and university actors.

Corsi et al (2019) portray a model where KIBS university spin off firms, i.e., firms that put academic and technological know-how and research into practice, utilize the firm resources and capabilities to support their growth.

In Corsi et al's model (2019) knowledge is divided into three layers: analytical coded information and data, synthetic tacit knowledge, and symbolic knowledge related to expressions and outputs. In particular, analytical knowledge is found to be a crucial aspect of university spinoff KIBS firms, and the firms may have access to a wider range of resources due to the positive impact of the university ecosystem. The authors (2019) argue that universities might act as parent organizations and allocate resources such as human capital, financial capital, and organizational resources to university spin-offs KIBS and cultivate their growth (Corsi et al., 2019, p. 48).



**Figure 3** KIBS resource model (adapted from Corsi et al., 2019).

Liu et al's., (2019) claim that KIBS companies have three roles in local collaborations. KIBS companies seek to fill the knowledge, regulation, and capacity gap. In the knowledge gap, KIBS companies use their expert knowledge related to locality to fill the information gap between manufacturing companies and customers (Liu et al., 2019).

KIBS firms utilize knowledge of the most recent government regulations to support new companies entering the manufacturing sector to fill the regulation gap and can close the capacity gap challenges by communicating customers' special wishes to manufacturing companies and developing more specialized services in co-creation (Liu et al., 2019, p. 380-385). Wyrwich (2019) argues that proactive expansion of industrial activity in urban areas could increase the emergence of KIBS startups.

In creating new services and innovations, KIBS firms can utilize **co-creation** to involve the staff, customers, and other external stakeholders in the process (Hidalgo & Herrera, 2020, p. 2). Through co-development, innovative ideas can be gathered extensively from staff, customers, and other stakeholders and firms can increase their insight capacity by utilizing opportunities that arise from joint development work (Ramaswamy & Ozcan, 2014, p. 280).

A company's innovative culture has a significant impact on how customers and frontline employees are involved in the co-creation process of new services (Ramaswamy & Ozcan, 2014). Santos-Viljande et al., (2013) state that firms utilizing co-creation can reach a more sustainable competitive position and create more significant innovations. In KIBS firms, a front-line employee is a specialist in a specific field who strives to solve customers' complex challenges (Santos-Vijande et al., 2013, p. 89). The professionals have an autonomous approach to the challenge at hand, and therefore it is crucial that they are included in creating the solutions and innovations that are visible to the client. It is essential that the expert employees of KIBS companies agree on the quality of innovation, service processes and performance (Ramaswamy & Ozcan, 2014, p. 280). By co-creating services with the employees, KIBS companies can gather diverse and in-depth insight to support the creation of service processes (Santos-Vijande et al., 2013; Ramaswamy & Ozcan, 2014).

**Co-creation processes can be external**, involving customers or other essential stakeholders (Ramaswamy & Ozcan, 2014, p. 16). According to Doloreux et al., (2018), customer involvement is central to the development of new services in KIBS. Customer co-creation has been found to be a critical action, particularly in P-KIBS companies, although co-creation with external stakeholders is practiced in both P-KIBS and T-KIBS companies (Cavigiosu & Campagnolo, 2018, p. 611). Involving the customer in the development process and innovation of new services can take place at certain stages of the development process or throughout the development process (Santos-Vijande et al., 2013, p. 88). With customer co-creation, the process and quality of the service to be developed can be ensured to meet the customer's needs. There are plenty of methods and tools available for engaging customers in service development: discussion groups, interviews, and traditional customer surveys are ways to engage customers to share information about their needs and expectations for certain services (Santos-Vijande et al., 2013, p. 88).

The customer's role in the co-creation process can also be active, the customer can participate in the development of services as a facilitator, optimizer of the common process and a value generator (Hidalgo & Herrera, 2020, p. 3). The benefits of customer involvement include a deeper understanding of the customer needs, higher service quality, cost savings, and a more agile development process for new services (Santos-Vijande et al., 2013, pp 89). Chichkanov (2020) and Ramaswamy & Ozcan (2014) suggest that social media and various digital platforms has turned customer co-creation into a more common way to approach product and service innovation and development. With this shift, customers have become active in sharing knowledge and producing added value in the innovation processes instead of passively consuming ready products and services (Chichkanov, 2020, p. 1195)

Key features in KIBS		
<b>Knowledge</b>	Basis of KIBS. Learning experiences and knowledge sharing internally and with shareholders. Increasing knowledge passively and actively.	Miles et al., 1995; Zieba et al., 2017; Doloreux & Shearmur, 2010; Amara et al., 2016; Wyrwich, 2019; Tseng et al., 2011
<b>Innovation</b>	Arising from internal development work. Several knowledge retrieval methods. Innovation strategies supporting innovation operations. Various roles in innovation processes. Product and process innovation.	Santos-Viljande, 2013; Cabigiosu & Campagnolo, 2018; Doloreux & Shearmur, 2010; Asikainen, 2013; Rodriguez et al., 2016; Fernandez & Ferreira, 2013
<b>Collaboration</b>	Supporting regional competition and innovation. Disseminating knowledge from an actor to another. University concentrations, KIBS spin-offs. Roles: filling knowledge, regulation, and capacity gaps.	Fernandez & Ferreira, 2013, Shearmur & Doloreux, 2015; Savic et al., 2020; Hidalgo & Herrera, 2020; Doloreux & Frigon, 2020; Corsi et al., 2019; Liu et al., 2019
<b>Co-creation</b>	Internal and external methods and tools. Depends on organizations innovative culture, innovation quality, service process. Solving customer challenges in co-development.	Santos-Viljande, 2013; Ramaswamy & Ozcan, 2014; Cabigiosu & Campagnolo, 2018; Hidalgo & Herrera, 2020; Chichkanov, 2020

**Table 1** KIBS characteristics.

### 2.1.2 Obstacles in KIBS processes

Although KIBS activities are identified as significant development actions that generate knowledge and innovation, there are challenges related to KIBS processes. Internal or external co-creation do not always produce useful or added information or lead to insights (Chichkanov, 2020, p. 1197).

According to Santos and Spring (2015), there may be several barriers to co-creation, especially in joint projects with clients. Obstacles in KIBS projects can relate to ambiguity about the client's role in the project, lack of professionalism and motivation, or inadequate resources to participate in the co-creation. It might also be challenging to form a relationship between the customer and KIBS that is fruitful and supportive of co-creation (Santos & Spring, 2015, p. 86). KIBS firms and KIBS process managers may not have the appropriate tools to identify and engage more passive or unmotivated customers in the co-creation processes. Thus, the challenges of customer co-creation can be related to communication with customers and customer management (Santos & Spring, 2015, p. 85).

Focusing on the individual customers' requirements can create a challenge when customizing KIBS' services. Focusing on the special service features can limit KIBS's competitiveness in the operating market and potentially hamper the service's replicability. As a result, KIBS firms might embed a vast number of resources and capabilities into a single service without substantial market benefits. The more the KIBS process depends on the customer and their knowledge, the less the KIBS company has internal control over it (Cabigiosu & Campagnolo, 2018, pp 593). Valminen and Toivonen (2012), claim that the customer's understanding of the service entity can create a challenge in KIBS processes. It significantly depends on the KIBS service provider, how the offering is concretized so that the customer can comprehend and internalize the benefits and results. (Valminen & Toivonen, 2012, p. 277).

According to Amara et al (2016), financial and knowledge-related challenges can become barriers to effective KIBS processes. Financial challenges are found to complicate the emergence of product and service process innovations, as the lack of financial resources has a significant impact on running processes and the ability to invest in product and service innovation. Knowledge barriers can create challenges for strategic actions, management, and delivery-related innovations (Amara et al., 2016, p. 4070).

Asikainen (2013), claims that there are risks in service innovations related to KIBS, eminently when innovating around technological modifications. In service development, test pieces of a ready-made services cannot be produced and analyzed. Services might be assessed with customers or other sample groups, but this may elongate the process and require several rounds of editing before deployment (Asikainen, 2013, p. 88).

## **2.2 New Service Development (NSD)**

According to Biemans et al (2016), the field of New Service Development research has not taken great strides despite its popularity in recent decades. The growing interest in NSD over the past decade can be equated with the servitization of businesses and changes in the operating environment of manufacturing firms (Marzi et al., 2021, p. 335). According to Silva et al (2014), the development of service innovations has progressed from the indifference of the 1980s to the adaptation of the 1990s, from which to the delineation and synthesis of service development as its own line of research in the 21st century. Particularly in the 1980s and 1990s, the perspective of manufacturing and product development in service innovations was distinct, and although Silva et al (2014) found that service innovations and product development have now merged and service innovations have moved towards their own characteristics and definitions, there are still challenges in defining New Service Development. The early research of NSD focused eminently on identifying the functions required for the design of a new service. These functions were to ensure service innovations and their quality (Johnson et al, 2000, p. 3).

According to Edvardsson et al (2013), three different trends can be found in the New Service Development literature. Firstly, the service research theme, deals with service characteristics and service production. The second theme, product development, utilizes models based on product development, and the final theme, innovation, focuses on service innovation and its development. Although the themes focus on different NSD perspectives, they all aim towards a broader understanding of how new services should be developed in practice (Edvardsson et al., 2013, p. 26).

The NSD research partially utilizes frameworks, theories, and models that are characteristic to the New Product Development (NPD) discipline, therefore the NSD discipline has remained fragmented and without a clear research agenda of its own (Biemans et al., 2016; Lee et al., 2017). However, the concepts of NPD and NSD differ significantly, and NPD models cannot directly address NSD challenges due to the difference in process features. Without clear guidelines and tools of their own, organizations may face challenges when developing NSD processes. According to Marzi et al (2021), NSD and NPD can be equated, as operating support services are often offered to help customers use modern, versatile products in the most efficient way possible and gain added value through additional services. However, Hydle et al (2016), claim that the theory and frameworks created for product innovation development do not guarantee compatibility in NSD processes. From the perspective of corporate decision-makers, shortcomings in the NSD literature, and lack of common models and frameworks can make service development processes challenging when the common guidelines on the subject are deficient (Hydle et al., 2016, p. 56).

According to Biemans et al (2016), NSD research cannot answer to the fundamental questions regarding managing NSD processes. Jaakkola and Hallin (2018) criticize the existing NSD research for the lack of understanding of the company's internal NSD arrangements, the misconceptions about features defining NSD structures, and the formation of an uneven perspective on NSD organization. Biemans et al (2016), claim that the challenges of the current state of NSD research include the lack of extensive research networks, limited research impact, and the lack of a clear, commonly identified knowledge base. To clarify the NSD discipline guidelines, Biemans et al (2016) suggest supporting researchers in the transition to NSD discipline to provide a stronger, coherent research and knowledge background for the discipline. Marzi et al (2021) suggest that NSD research requires broader literature reviews and bibliometric investigations to bloom as a research stream.



### **2.2.1 New Service Development process**

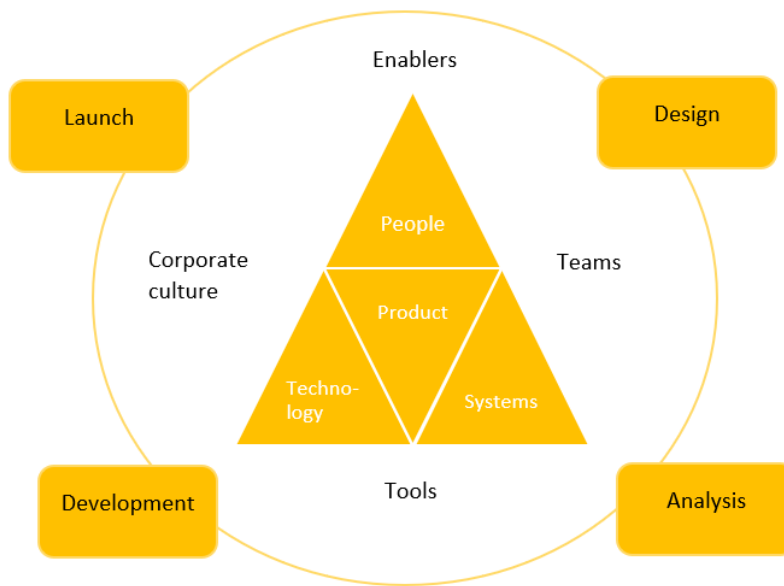
New Service Development (NSD) is identified as a growing field of research strongly tied to innovation and service operations management (Menor & Roth, 2007, p. 825). According to Cooper et al (1994), NSD refers to the development of a comprehensive service offering from brainstorming to service disclosure. NSD process consists of all the activities and actions that take a project from its first ideation stage to the release of the finished service (Cooper et al. 1994). A new service can be defined as an offering that the customer perceives as new, based on radical changes in the offer, improvements in service packages, or new delivery processes (Johnson et al, 2000, p. 2). NSD's sectors can range from health care to finance and information services to education and telecommunications (Johne & Storey, 1998).

Service design and service innovation are significant aspects of NSD. Service design refers to the detailed content structure that derives from the service strategy and the design aspect plays an essential role in the overall NSD processes (Jonson et al., 2000, p. 17). According to Behara (2000), innovation can be actualized in launching new or improved products or services into the market. Producing service innovations requires the existence of an intangible service and a smooth process with which the service is delivered to customers (Behara, 2000, p. 138). den Hertog (2010) defines service innovation as a new service-related solution that includes one to six aspects: a new service concept, interaction with a new customer, new business partners, a new income generating model, or a new organization or technology-related delivery system. Johnson et al. (2000), divide new service innovations into two categories, radical and incremental innovations. The new service innovation definitions are described in Table 2.

**Table 2** New service categories (Adapted from Johnson et al., 2000).

<b>New Service Categories</b>	
<b>Radical Innovations</b>	
Significant innovation	Traditionally technology-driven innovations for undefined markets
Startup Innovation	New services to a market already occupied with services
New service for the presently served market	New service offering to a certain organization
<b>Incremental Innovations</b>	
Extending service lines	Expanding the current service lines with additional features
Improving services	Changing current service offering's features
Changing styles	Repackaging services' visible features without changing the core service

The general NSD process cycle by Johnson et al., (2000) has been identified to follow four cyclical steps: design, analysis, development, and service launch. The design and analysis steps can be categorized as the planning stage of the process, focused on the internal resource and capability recognition. In these steps, service objectives are formulated, concept developed, and ideas generated followed by project authorization and business environment analysis. The development and service launch represent the execution stage of the process, which concludes the design of the service delivery system, piloting, marketing, internal training, and overall development efforts until the launch of the ready service and post-launch analysis (Johnson et al., 2000, p. 19). The process cycle highlights the factors that enable the NSD process, such as the teams within the organization, the tools that support the process, and the corporate culture that help drive the development of the service delivery system. At the heart of the process are people, product, and existing practices and technology (Johnson et al., 2000, p. 18).

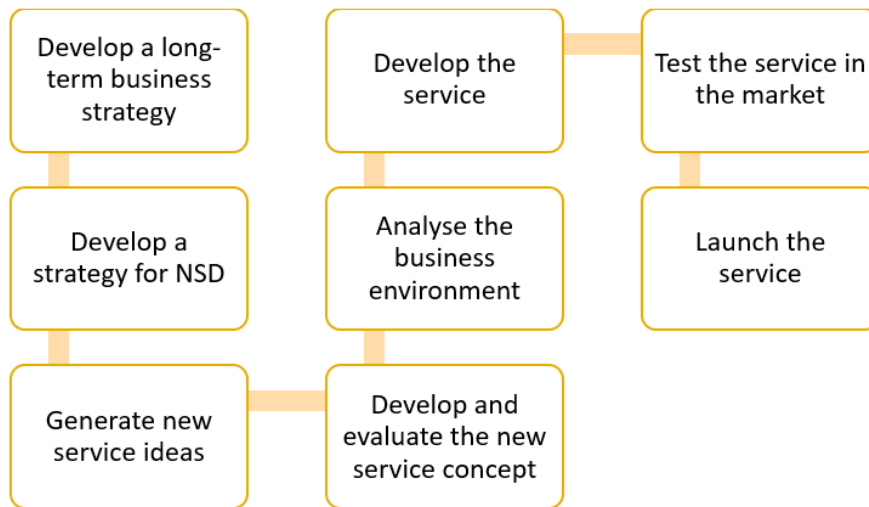


**Figure 4** NSD process model (adapted from Johnson et al., 2000).

### 2.2.2 Key dimensions in New Service Development practices

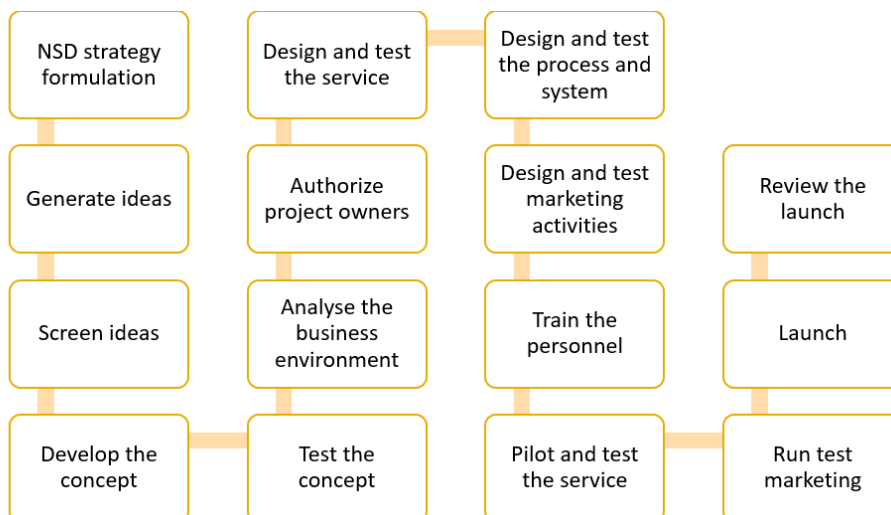
Research and literature related to New Service Development has been found to be scarce. However, some key dimensions of NSD theory from various researchers are presented below. Researchers have created a spectrum of frameworks to understand NSD processes and the purposeful outcomes they create (Jaakkola et al., 2017, p. 330). The topic of New Service Development is not unambiguous to package, as NSD research is often based on development work in certain limited sectors and is therefore challenging to generalize to a wide range of service offerings (Jaakkola et al., 2017, p. 330).

The early NSD research includes the works of Bowers (1989) and Scheuing and Johnson (1989). Bowers suggests an eight-step model for **NSD process advancement** and guidance. The model moves from developing a business and new service strategy to generating ideas and concepts all the way to developing and testing the service. The process is condensed into the launch of the service to the commercial market (Bowers, 1989, p. 18-19).



**Figure 5** A normative model for NSD (Bowers, 1989).

Scheuing and Johnson (1989) take their **normative NSD model** one step further from Bowers with their 15-point model that operates as a checklist when executing NSD activities. Their model also begins with new service strategy formulation and idea creation, but it pays more attention to the development and testing of the concept before analyzing the business environment. Scheuing and Johnson's (1989) model emphasize the internal development and active, multiphase testing before launching the finalized service.



**Figure 6** A normative model for NSD (Scheuing and Johnson, 1989).

Menor & Roth (2007) study NSD from a **competency dimensions perspective**, where certain NSD practices support the performance of NSD processes. The five competency dimensions are NSD processes utilizing and replicating service development activities, market acuity of detecting and responding to changing market and customer needs with the use of data, NSD strategy that is linked to the organization's business strategy, NSD culture that supports innovation, and managing and coordinating information in the NSD processes with IT expertise. According to Menor and Roth (2007), these five competence dimensions complement each other and support the performance of NSD processes.

**NSD Service innovation** was studied by Edvardsson & Olsson (1996), who claim, that service innovation covers three core themes: the development around the service concept, service system and service process. The service concept implies the outlines that define how the customer value and goals of the service are realized. The service process implies all the actions that must be functional in support of the service delivery. The service system covers all the existing resources that have been harnessed to implement the service concept. In Edvardsson & Olsson's (1996) model for the new service development process, the development of the service concept requires an examination of both internal and external aspects of the company. Central to the development of the service system is the specification of the demand for the service concept, the analysis of the current service system and the manuscript for the design of the new service. Finally, service process development clarifies the steps required to form a service. The model identifies the process' most critical points, the roles of those involved in development work, and clarifies customer expectations into a realistic entity (Edvardsson & Olsson, 1996, p. 159-162).



**Figure 7** NSD service innovation (Edvardsson & Olsson, 1996).

Edvardsson & Olsson (1996) also **emphasize the customer perspective in NSD**. The most crucial aspect in service development is to create the appropriate conditions for the service. Service prerequisites refer to the definition of the customer process, the quality of the service, the understanding of the customer logic and the end result of the service from the customer's point of view. Edvardsson and Olsson (1996) define a service as a customer process that results in an outcome the customer experiences. The customer process and the final result of the service experienced by the customer depend on the conditions defined for the service. The resources available to provide a service therefore affect how the customer process and above all, the outcome of the service is perceived (Edvardsson & Olsson, 1996, p. 146-147).

Pellizzoni et al (2020) studied **stakeholders' involvement in NSD processes**. The authors found that when involving external groups such as stakeholders throughout the new service development process in various stages and touchpoints, more efficient and practical service entities can be created due to the external professional knowledge available. In NSD processes, internal and external stakeholders are traditionally involved in the development phase of the process but increasing involvement also in the first and final phases of the process was found to be beneficial for the usability and design of the final service. According to Pellizzoni et al. (2020), the amount of flexibility the stakeholder has and the control over the stakeholder are strongly related to how their involvement in the NSD process varies. The study revealed that it would be beneficial to involve the stakeholders with plenty of flexibility but low control regarding the NSD process in the very beginning and end of the process to gain knowledge and insight.

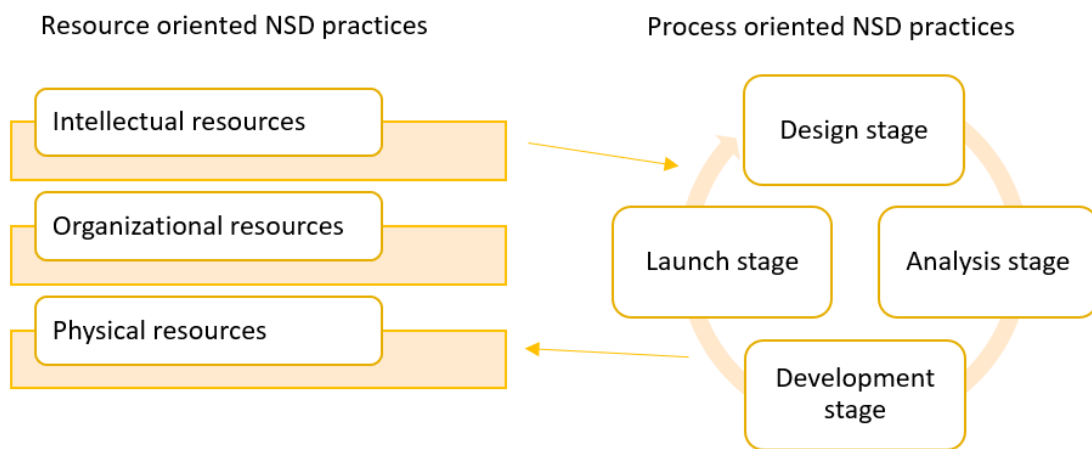
The stakeholders with less flexibility but more control from the team innovating the NSD process should be invited to co-create in the development phase of the process (Pellizoni et al., 2020, p. 430-431).

Kindström & Kowalkowski (2009) propose a **service offering development framework** to highlight key aspects of NSD. The NSD process can be divided into four sections: understanding customers, the operating environment and internal organization with market observation, process development and supply management, defining the sales process and customer needs, and delivering the service efficiently. These NSD phases follow one another as a continuum between which companies should observe the experiences of the previous phase to advance the service development process (Kindström & Kowalkowski, 2009, p. 162-166).

Hsieh and Tidd's (2012) study on **open and closed new service development processes** found that the more recent or new the NSD process is, the greater the need for communication and knowledge transfer between internal and external parties. When the process is considered new, a more closed approach to NSD might accelerate the development itself but in an open mode of operation more valuable and diverse innovations may emerge. The study concludes that the relationships between actors taking part in the process has an impact on the emergence and quality of innovation outcomes in NSD (Hsieh & Tidd, 2012, p. 606-607).

**NSD performance affecting factors** were studied by Edvardsson et al (2013), who propose a conceptual model for NSD processes. According to Edvardsson et al (2013), the four core strategic actions of NSD performance are strategy for service development, process for service development, arranged teams executing service development, and co-development with customers. According to their definition, the conceptual model for NSD, these four aspects have a distinct impact on the new service development performance (Edvardsson et al., 2013, p. 27).

**The NSD project focus** studied by Froehle & Roth (2007) suggests a resource process framework (RPF) for New Service Development. The resource oriented NSD practices refer to actions that cultivate, motivate, and develop a company's resources. The resources can be related to intellectual knowledge of the personnel, organizational resources regarding the management and operating systems, and physical resources covering the company's physical location, assets, equipment, and technologies. Process-oriented NSD functions refer to the planning, refinement, and implementation of a new service offering (Froehle & Roth, 2007, p. 172-175). The steps in the service process can be broken down into designing and refining the service process ideas, analysis of market performance and internal business, service process development, and finally, service launch where the new service is published. Froehle and Roth (2007) argue that by leveraging and developing both process and resource practices, a company can create sustainable competitive advantage, innovation, and growth in NSD capabilities that are challenging to replicate.

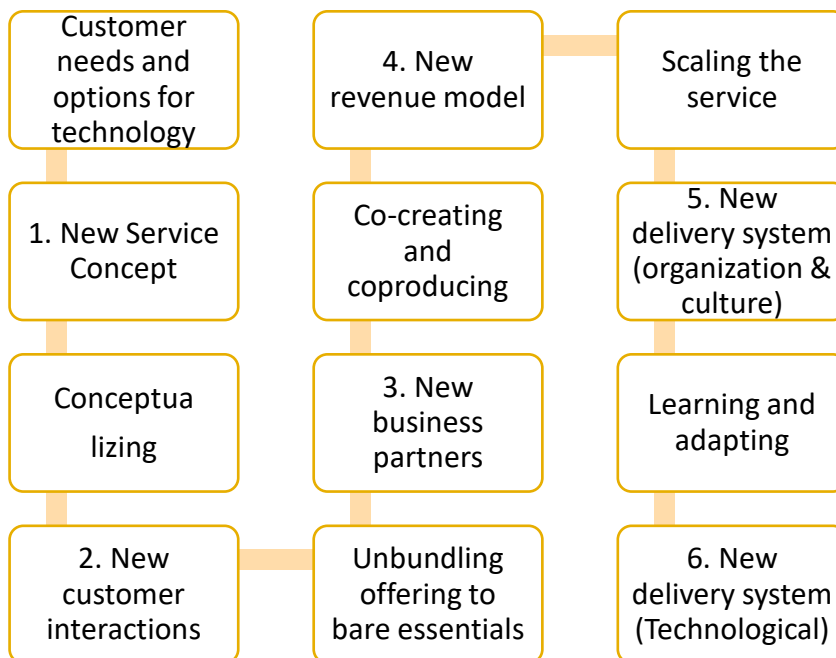


**Figure 8** The resource-process framework (adapted from Froehle & Roth, 2007).

**The NSD capability and service innovation focus** by den Hertog et al, (2010) propose a framework in which service innovation is realized through six dynamic capabilities.



The six service innovation aspects: the service concept, interaction with new customers, creating value systems, defining the revenue model, and defining the delivery systems for organizational and technological operating methods are tied to the six dynamic internal service innovation capabilities (den Hertog et al., 2010, p. 493-495). The dynamic capabilities which verify the above-mentioned service innovation entities are identification of customer needs and technological requirements, conceptualizing the service, unbundling the offering to bare essentials, co-creating the service process, scaling the service offering, and learning and adapting how to manage the service innovation process (den Hertog et al., 2010, p. 499-504).



**Figure 9** Service innovation in NSD (adapted from den Hertog et al., 2010).

The key NSD dimensions and their characteristics presented in the literature review are concluded in Table 3.

**Table 3** NSD dimensions.

<b>NSD dimensions</b>		
<b>Theoretical orientation</b>	<b>Focus</b>	<b>Researchers</b>
<b>Early normative NSD models</b>	Covering and making sense of the actions in NSD processes. Focus on creating concrete steps in the NSD process from start to finish.	Scheuing and Johnson, (1989); Bowers (1989) & Johnson et al (2000)
<b>Competency dimensions</b>	Competences concretized with NSD process focus, market actions, NSD strategy and internal culture and technological know-how. Focus on desirable NSD outcomes reached with resources and routines.	Menor & Roth, (2007)
<b>Service innovation &amp; capabilities</b>	Service concept, service system, service process development, customer process and customer outcomes. Focus on managing holistic service process, service innovation roles, and customer expectations.	Edvardsson & Olsson, (1996); den Hertog, (2010)
<b>Service offering development</b>	Market environment, process development, sales processes, service delivery. Focus on following a NSD process and learning from process phases.	Kindström & Kowalkowski, (2009)
<b>NSD performance</b>	Service development strategy, service development process, teams, co-creation with customers. Focus on service development strategy.	Edvardsson et al., (2013)
<b>Resource-process</b>	Intellectual, organizational, physical resources and process phases design, analysis, development, and launch. Focus on both resources and NSD process as accelerators for growth and competitive advantage.	Froehle & Roth, (2007)
<b>Involvement in NSD processes</b>	Examining stakeholders' flexibility and control factors and internal and external parties' effect on NSD process innovation outcomes. Focus on the effects of open and close NSD processes and stakeholders' involvement in NSD process phases.	Pellizzoni et al (2020); Hsieh and Tidd's (2012)

### **2.2.3 Managing New Service Development processes**

Organizational arrangements play a significant part in the success of NSD processes. Jaakkola & Hallin (2018) define four core aspects for NSD from an internal perspective. These four aspects, NSD in visible customer relations, NSD in changing project teams, NSD in different business development units, and NSD research and development units can exist in companies simultaneously.

Company management should support and promote these aspects simultaneously rather than focusing on one structure at a time (Jaakkola & Hallin, 2018, p. 281). To manage NSD processes in companies, the opportunities, and challenges inherent in different NSD structures should be identified, a strategy for organizing NSD should be developed and utilized, and a knowledge management system should be prepared to facilitate the smooth sharing of NSD information between different organizational structures and units (Jaakkola & Hallin, 2018, p. 281). According to Liu (2011), with the implementation of the NSD strategy, a company can improve its competitive position in the market it operates in while enhancing the company's NSD related competencies. According to Edvardsson et al (2013), the most common belief among managers regarding NSD is that co-development with a customer is central to the process of developing new services. Investing in the creation of a service development strategy and collaboration between development teams and customers were identified as contributing factors to the success of NSD processes in Edvardsson et al's (2013) study. It was found that project managers possess a key role in leading the individual competencies of NSD team members and the managers should analyze how co-creation and communication with clients is implemented throughout the NSD process (Edvardsson et al., 2013, p. 37).

In their study, Kelly, and Storey (2000) found that only half of the service firms they surveyed utilized a separate NSD strategy, service-related idea production was largely done on an ad hoc basis, and the evaluation of ideas did not support the NSD strategy.

Kelly and Storey (2000) also emphasize the importance of the existence of internal NSD competencies in companies and recommend the accumulation of competencies through development or the acquisition of external skills. Ensuring a culture, processes, and systems that encourage the production of ideas in organizations are also essential for the smooth running of NSD processes (Kelly & Storey, 2000, p. 59). According to Edvardsson et al (2013), managers should pay more attention to how the perspective of NSD strategy, company strategy, value proposition, and value created for the customer complement each other. Maintaining an NSD strategy is a significant NSD resource that enables companies to focus on maintaining existing organizational strengths, integrating new services into existing offerings, and balancing development and internal resources within the organization (Johns & Storey, 1998).

According to Jaakkola et al (2017), business leaders should carefully consider the tools, models, and methods that support NSD and consider which approach is appropriate for each service in question. Not all NSD approaches are applicable to all services and management should analyze the services and their development activities on an individual basis before starting the actual development process (Jaakkola et al., 2017, p. 341).

### **2.3 Synthesis – a model for creating and implementing a new service development process in a KIBS firm**

This section combines the New Service Development (NSD) and Knowledge Intensive Business Services (KIBS) literature discussed earlier in the literature review. This section also presents a model that, with the two theoretical contents, seeks to answer the main research questions of how to create a new service development process for a KIBS firm and how to implement it in practice. The literature section began with a description of KIBS, their typical characteristics, and the challenges that have been identified in KIBS processes. KIBS can be defined as business activities that are inherently knowledge-intensive and provide its customers with services that do not involve a specific repeatable routine (Doloreux & Shearmur, 2010, p. 612).

Knowledge intensity and innovations are typical features of KIBS firms (Miles et al., 1995) but features of collaboration and external and internal co-creation have also been identified as characteristics, that can be connected to KIBS (Fernandez & Ferreira, 2013; Santos-Viljande et al., 2013).

In-depth knowledge is at the heart of KIBS and serves as a resource for day-to-day operations, and the creation of new services and products. Knowledge is capital that is distributed, sold, and focused on the individual challenges of customers (Miles et al., 1995). Influencing the enhancement of existing knowledge and creating new knowledge supports the emergence of KIBS innovations. KIBS companies can play several roles in innovation processes and have a particularly strong role in service innovation (Asikainen, 2013; Doloreux, 2018; Cabigiosu & Campagnolo, 2018). KIBS firms have been studied to promote, in particular, local collaboration and to produce innovations that support the activities of specific regions and their actors (Fernandez & Ferreira 2013; Savic et al., 2020; Hidalgo & Herrera, 2020). KIBS companies may be university-related actors that leverage in-depth research and knowledge in a certain regional concentration (Corsi et al., 2019). KIBS companies carry out internal co-development of innovations, services, and processes internally with personnel and externally with customers and other stakeholders (Ramaswamy & Ozcan, 2014; Hidalgo & Herrera, 2020; Santos-Viljande et al., 2013).

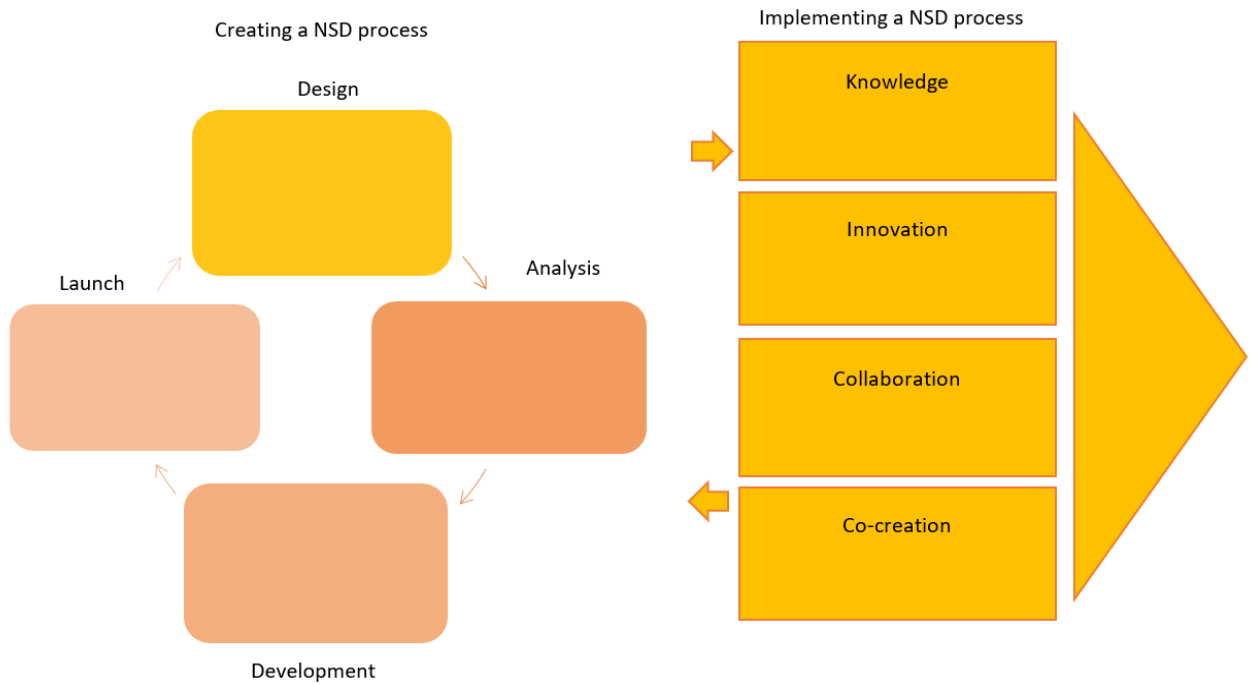
The second section of the literature discussed NSD, the background to its research, frameworks to perceive it, and ways to manage NSD processes. NSD has historically been associated with New Product Development (NPD) and has been considered a fragmented field of research without clear defining points, frameworks, and models (Biemans et al., 2016; Lee et al., 2017). However, NSD is a growing and evolving discipline that is strongly tied to innovation and service operations management (Menor & Roth, 2007, p. 825). The NSD process can be defined as the development of a comprehensive service offering from brainstorming to service disclosure and new services can be compartmentalized into both radical and progressive innovations (Johnson et al., 2000).

The traditional NSD process can be divided into four parts: design, analysis, development, and service launch (Johnson et al., 2000). NSD practices have several perspectives and dimensions. NSD can be viewed *inter alia*, in terms of competencies, service innovation, customers, offering, performance, resources, capabilities and process involvement (Menor & Roth, 2007; Edvardsson & Olsson, 1996; Kindström & Kowalkowski, 2009; Edvardsson et al., 2013).

There are several tools for perceiving and clarifying service development processes, one of the most popular being the Service Blueprinting tool. Service Blueprint can be used to map the levels of the service process and the roles of employees and customers in the process (Shostack, 1982; Zeithaml & Bitner, 2000). In addition to utilizing a variety of tools and frameworks, NSD processes can be efficiently implemented through management. Organizational arrangements play a key role in how the company's professionals develop and maintain new services (Jaakkola & Hallin, 2018). The development and implementation of a NSD strategy, cultivation of customer relationships, project teams, various operating departments, and R&D activities through the lens of NSD and the accumulation and nurturing of NSD competencies within the organization are key factors in managing NSD (Edvardsson, 2013; Kelly & Storey, 2000; Johne & Storey, 1998; Jaakkola et al., 2017).

The KIBS and NSD literature are combined in figure 10. It combines a simplified NSD process model adapted from Johnson et al (2000) with the four generic KIBS characteristics and the ways in which the new services are implemented and maintained in the future. The empirical part of the research deals with the development of a new service from its design to the final launch utilizing the means of action research. The case study company, Helsinki Think Company, is a KIBS firm operating under a university, of which activities are based on knowledge, innovation, collaboration, and co-creation.

The qualitative data of the study is mirrored with the model below to analyze the NSD process, which utilizes KIBS characteristics to support the development work and which ultimately generates an established way to implement and maintain the created services and the process.



**Figure 10** A model to study NSD in a KIBS firm.

### **3 Methodology**

This section discusses the methodology chosen for this thesis. Philosophical assumptions are presented first, followed by a review of the research strategy and research method of the thesis. Then, the case selection process, data collection and analysis methods are showcased. At the end of the section, the validity and reliability of the study are reviewed.

#### **3.1 Philosophical assumptions**

When conducting action research, a researcher should consider, in certain terms, one's position in research, the development of knowledge, research methodology and socio-political aspirations. Ontology refers to the theory of being, with which the researcher must analyze their position in the research. Epistemology, theory of knowledge can be used to outline how an individual understands knowledge (Koshy et al., 2010, p. 14; McNiff & Whitehead, 2003, p. 27). Methodology refers to how researchers perform research tasks and how they perceive the research. Socio-political intentions encompass what a researcher intends to do and how they intend to accomplish it (McNiff & Whitehead, 2003, p. 27).

An action researcher should therefore consider:

- What does the researcher believe in?
- How does the researcher think and how is their logic formed?
- How does the researcher behave and act?
- How do the findings of the researcher's knowledge respond to socio-political challenges and how does the researcher use the findings to support social and environmental well-being? (McNiff & Whitehead, 2003, p. 27).



### 3.2 Research strategy

A case study is an empirical research method that examines cases using limited research questions. A case study is used as a research method to increase knowledge in the field of an individual, group, organization, or social phenomenon. The research method can be used to study complex real-life situations (Yin, 2009, p. 4). Case study is an effective research method especially for limited or exploratory research (Maylor & Blackmon, 2005, p. 244). The case study seeks to answer “how”, “why” or “what” questions, in an effort to understand certain phenomena more holistically and in depth. (Yin, 2009, p. 10). The basic aspects of a case study are to refine the case under study, to determine the data and the ways in which it is collected, and to analyze the data and choose the ways in which it is presented (Maylor & Blackmon, 2005, p. 244). The use of several different data collection methods is common in case studies, the data can combine both qualitative and quantitative aspects (Gillham, 2000, p. 2; Eisenhardt, 1989, p. 538). Data collection methods can vary from individual or group interviews, observation, documentation, archives to questionnaires (Yin, 2009, p. 11; Eisenhardt, 1989, p. 534).

Case studies can be descriptive, exploratory, or explanatory (Yin, 2009, p. 8). Descriptive research closely examines persons, events, or phenomena that the researcher must have extensive knowledge of in advance. Explanatory research focuses on elucidating the relationships between a challenge or situation, and exploratory research can be used to clarify and create new insight and to study specific phenomena from different perspectives. This single case study has exploratory features that include, for example, writing a literature review, conducting expert interviews, and creating a feedback questionnaire (Saunders, 2007, p. 133-134). There are various approaches to case studies: the researcher can focus in depth on one case only, one case and its sub-cases, or alternatively study several cases simultaneously (Maylor & Blackmon, 2005, p. 245). Multiple case studies are suitable for situations where one wants to find out the determinants of a particular case that can be repeated similarly through different cases. A single case study focuses on analyzing one unit and its operations and it is effective in examining a unique situation (Maylor & Blackmon, 2005, p. 246).

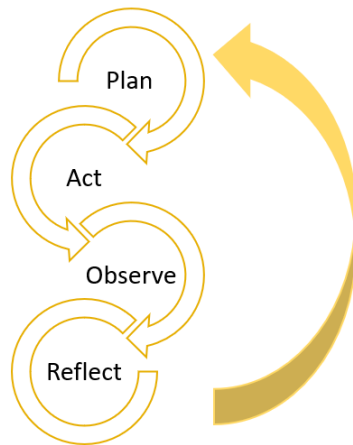
This thesis utilizes the single case study approach, especially due to the specific nature of the phenomenon under study. The new service development of an individual company is a one time, inherently unique event, for which a single case study approach is ideal. Although the case study is suitable approach for this study, it is not a completely gap-free and it has been criticized for high workload, a varied level of benefit and systematics and possibility to generalize results (Yin, 2009, p. 18).

### **3.3 Research method**

This thesis is conducted as a qualitative single case study that follows the action research methodology. Research approaches can traditionally be divided into qualitative and quantitative research. Qualitative research relies heavily on an in-depth examination of phenomena, details, and a smaller number of events that can be perceived unique. Qualitative research focuses on collecting and analyzing information in various formats, traditionally not by numerical means (Blaxter et al., 2010, p. 60). Qualitative data collection methods include, documentation methods, interviews, questionnaires, surveys, focus groups, or the use of report archives (McNiff & Whitehead, 2003, p. 108-109). Quantitative research focuses on data collection and analysis in numerical form. Quantitative research seeks to identify facts and various causes for identified phenomena. Quantitative research is often generalizable, as it allows the study of multiple cases and the processing of large numerical data masses simultaneously (Blaxter et al., 2010, p. 66).

Action research traditionally follows qualitative research methods, but it may also include quantitative methods (Costello, 2003, p. 43). Action research is a research method that is widely used to improve the state and practices of various situations, and it is originally based on health care operations development (Koshy et al., 2010, p. 2). Action research can be called practice-led or participatory action research, referring to its co-creative and researcher-centered approach (Koshy et al., 2010, p. 2; McNiff & Whitehead, 2003, p. 23). Action research consists of concrete action, evaluation, critical review, and the implementation of changes. The research method is participatory, and it fosters cooperation.

The research method is reflective, and new research information is created through concrete activities. Action research can be used to solve real-life challenges and develop practices, and its findings can be viewed as the results of concrete action. The findings cannot be considered absolute or definitive, as the study is situation dependent (Koshy et al., 2010, p. 2-3). In action research, concrete initiative is taken to better understand and change the action or situation under research. Action research is often described as a spiral or cyclical process in which the steps planning, acting, observing, and reflecting repeat each other (Costello, 2003, p. 5-6). A simple description of the steps in the action research process is provided below.



**Figure 11** Action research process (adapted from Costello, 2003).

At the heart of action research is its case-by-case approach, on-the-job research, and the people implementing the process, regardless of their previous experience, age, or organizational position. Central to the action research process is reflection on what is being done and an understanding of what the research process is aimed towards (McNiff & Whitehead, 2003, p. 23). The term 'action' in action research can be combined to what the researcher does. The term 'research', on the other hand, refers to how a researcher realizes what to do. With action, the researcher wonders why the situation is as it is and what could be done about it. The research includes collection of data and a variety of evidence and showcasing how the action is reflected using the data.

The data is used to draw conclusions of the impact of the implemented actions (McNiff & Whitehead, 2003, p. 25-26).

### **3.4 Case selection**

The case company of this thesis is Helsinki Think Company, a KIBS firm and an entrepreneurial society operating under the University of Helsinki and the City of Helsinki. Helsinki Think Company's main goals are to put academic skills into practice and promote entrepreneurship through collaborative workspaces, events, and various programs (Helsinki Think Company, 2021). Helsinki Think Company operates in the four university campuses: Helsinki City Center, Meilahti, Kumpula and Viikki, and mainly employs students from different academic fields. Promoting and supporting academic entrepreneurship is one of the most crucial tasks of Helsinki Think Company and for this reason, the development of new entrepreneurial services was selected as the subject of this thesis. The decision was made reflecting on the existing need to develop the entrepreneurial services on a long-term and project-like basis from start to finish. Creating a new service and strengthening entrepreneurial endeavors also requires in-house training and understanding of the service's customer base. There was concrete demand for diverse entrepreneurial services and the development of Helsinki Think Company's core offering was seen as a critical step towards operating as a low-threshold entrepreneurial service provider.

Simultaneously, it was essential to strengthen the image of the University of Helsinki and Helsinki Think Company as entrepreneur-friendly and entrepreneurship promoting actors and to create easy-to-internalize means for Helsinki Think Company's staff to support academic entrepreneurs in various fields (Helsingin yliopisto, 2021). The key new service under development is the digital Entrepreneur's Knowledge Bank. The Knowledge Bank offers concrete resources, ecosystem contacts, tips, inspiration, and courses from various sources related to entrepreneurship. The aim is to simplify finding information related to entrepreneurship, strengthen academic entrepreneurship, and highlight Helsinki Think Company as a strong entrepreneurial service provider.

In addition to the Knowledge Bank's external resources, the totality of the entrepreneurial services includes Helsinki Think Company's own tools, one-to-one sparring sessions, and a channel through which the company's experts can be directly contacted in case of entrepreneurship-related challenges (Helsinki Think Company, 2022).

### **3.5 Data collection**

The data collected for an empirical study can be primary or secondary data. Primary data is data that the researcher collects, by for example observing or interviewing certain groups or individuals. Data that already exists can be considered as secondary data (Eriksson & Kovalainen, 2016, p. 81). In this thesis, primary data are collected in the form of semi-structured interviews and a workshop feedback questionnaire. Secondary data is collected from case company archives, e.g., shared Google Drive folders. Semi-structured interviews traditionally utilize 'what' and 'how' questions, and instead of strict yes or no questions, the interviewee has the opportunity to address the topic or phenomenon freely in their own words. In a semi-structured interview, the outline of the theme is chosen, but in the interview situation itself it is possible to change the order of the questions or their wording to better fit the context of the interview (Eriksson & Kovalainen, 2016, p. 94).

Questionnaires are a data collection method in which each respondent is asked the same questions in the same order. With questionnaires, even a large number of data can be collected efficiently. Precise formulation and a clear breakdown of the questions, an explanation of the meaning of the questionnaire to the respondents, piloting of the questionnaire and a structured implementation of the questionnaire are important in preparing the questionnaires (Saunders, 2007, p. 354-356). The combined use of the above methods supports this research and are perceived as suitable for action research.

In the first phase of primary data collection, a total of three interviews were conducted. Individuals selected as interviewees work in the case company as part of the NSD process in different positions.

In the NSD process, a comprehensive understanding of the totality of the new service development process was created by interviewing individuals for whom the topic was already familiar. A discretionary sample was used to gather new and in-depth information on the topic from different perspectives. Utilizing such sample may undermine the reliability of the study, but the research's criteria for selecting interviewees were the interviewee's work experience in the case company and professional skills related to the new service development process (Hirsjärvi & Hurme 2008, p. 60).

The interviewees got acquainted with the interview questions in advance, which streamlined the course of the interviews. The interviews were conducted online in English between October 2021 and January 2022. The interviews lasted between 30-40 minutes and were recorded with online conferencing services. The interviewees consisted of the CEO of the case company, the Head of Entrepreneurship who serves as a director of the entrepreneurial services development process, and the Chief Marketing Officer. The interviews provided an understanding of the case company's entrepreneurial services' current state, the development process itself, the customers' and stakeholders' role in the development process, and the launch and management of the services in the future. The interview descriptions can be found below.

**Table 4** Interview descriptions.

<b>Interviewee</b>	<b>Position in the company</b>	<b>Date</b>	<b>Interview length</b>
<b>1</b>	CEO	25.10.2021	38 minutes
<b>2</b>	Head of Entrepreneurship	9.11.2021	31 minutes
<b>3</b>	Chief Marketing Officer	14.1.2022	40 minutes

The interviews were conducted utilizing both fact and opinion-based questions (Hirsjärvi & Hurme 2008, p. 108). Both types of questions were crucial for understanding the current state and overall picture of entrepreneurial services development process, as they helped to clarify the starting points of the process, the perceptions of those involved in the process and the goals set at the top level. The interview questions were not the same for all the interviewees, but the themes of the interviews were consistent.

The interview covers the following topics:

1. Designing entrepreneurial services
2. Analyzing the service process
3. Internal and external development
4. Maintaining the services in the future

In the second phase, two four-hour online workshops were organized for the case company's staff, where the researcher and the company's Head of Entrepreneurship created training materials and introduced the company's staff to the new services through practical means. The same workshop was held twice to make sure everyone had the chance to participate, and a total of 18 people participated. Eventually the workshop concept was found so useful that it was also organized for the company's association board. However, the board's feedback responses are not addressed in this thesis. The workshop first addressed entrepreneurship and its definitions, after which the new entrepreneurial services (Entrepreneur's Knowledge Bank) were introduced to the staff. After going through the services, the rest of the workshop focused on internalizing the content of the new services through a practical "Problems & Solutions" working method to implement the new services. In this section, participants were divided into groups, where their task was to set up a business that answers to a specific challenge in a certain industry. The purpose of the section was to familiarize the staff with the basics of entrepreneurship and the steps involved in starting a business, while helping participants identify the themes and questions entrepreneurs may face when starting or growing their business.

The workshop facilitators observed the teams' development both in Zoom's breakout rooms and on online Miro boards, that were created to help the teams follow designated questions and process. At the end of the workshop, the teams presented their imaginary companies to other participants and received feedback and suggestions for further development of their concept from the facilitators and other participants. After the workshop, the participants were asked to answer a self-administered online feedback questionnaire with open questions to reflect the outcomes of the workshop.

The question set of the questionnaire was designed and piloted among the workshop organizers before being sent to participants. The questionnaire was conducted in Finnish to keep it easily approachable and to gather a wide range of truthful, descriptive answers. The researcher translated the questions and answers into English for the analysis phase of the thesis.

The themes of the questionnaire were:

1. Knowledge regarding entrepreneurial services
2. Enhancing process innovation
3. Internal co-creation through workshops and training materials
4. Collaboration with internal and external parties

**Table 5** Workshop feedback questionnaire descriptions.

<b>Workshop date</b>	<b>Number of participants</b>	<b>Number of questionnaire answers</b>	<b>Grades for the workshops</b>
25.1.2022	6	13 sets of answers (72%) (n=18)	4 (38,5%)
3.2.2022	12		5 (61,5%)



The evaluations of the workshop were positive, and all questionnaire responders gave it a rating of either four or five. The organizers were praised for the instructiveness, concreteness, overall materials, and energetic and professional approach to the workshops.

### **3.6 Data analysis**

The research data was analyzed in two steps. Both the semi-structured interview data and the open feedback questionnaires was analyzed utilizing a theory-guided qualitative content analysis. In a theory-guided analysis, the themes to be analyzed are selected from the collected data, but the previous theoretical understanding guides the analysis. The analysis of the data starts with open coding based on data, but it progresses according to the key concepts of the presented theory (Tuomi & Sarajärvi 2018). Both the interview and questionnaire questions arose from the theory creating classifications directly by a theory-guided analysis, but some classifications were also created in a data-driven manner.

The inductive process, where the analysis begins with data-driven pondering and continues with existing theoretical models guiding the finalization of the analysis process supports the totality of this thesis. The data analysis was initiated by transcribing the interviews and listening through the interview recordings on several occasions to ensure that all the relevant material was recorded. Next, the transcripts were reviewed, the data was then reduced, and the reduced terms were listed as underlined quotes, similarities and differences were searched for, and placed under lower classifications. These lower classifications were then combined to higher classifications and, lastly, aggregating classifications that describe the topic holistically (Tuomi & Sarajärvi 2018).

The compilation of a unifying classification is abstraction, in which the researcher constructs a description of the subject under study with the classifications formed. The empirical data are combined with the concepts presented in the theory by creating a model that includes the categories generated from the classification of the data (Tuomi & Sarajärvi 2018).

The data coding was done in Microsoft Word since it seemed to be the most logical solution for the thematic design and tabulation of the data. The higher classifications of the interview coding totaled at 18 with eight data-driven classifications and 10 theory-driven classifications and four aggregate classifications. The feedback questionnaires higher classifications totaled at nine with three data-driven classifications and six theory-driven classifications. The aggregate classifications totaled at four. The higher classifications and aggregate classifications of the data are described below in tables 6 and 7. Data-driven classifications are marked in italics. The data analysis is concluded in a framework bundling the findings from the coded and categorized data, combining the theory of NSD and KIBS with the empirical part of the thesis.

**Table 6** Theory-guided content analysis of the interviews.

<b>Theory-guided content analysis of the interviews</b>	
<b>Higher classifications</b>	<b>Aggregate classifications</b>
<i>Identifying the needs and understanding the background of the NSD process, idea generation, formulation of new service objectives, identifying potential users and customer groups, concept development</i>	1. Designing the NSD process by identifying the need for structured services for defined customer segments
Project authorization, need for change, analyzing firm's existing practices and processes, <i>bottle-necks of current operations</i>	2. Project authorization, examining and benchmarking existing practices
Service delivery, internal development, <i>development with external parties</i> , marketing efforts, <i>development challenges</i>	3. Internal and external development through training and marketing efforts
Actual launch, <i>goals of the finalized services, post launch service management, maintaining staff's understanding of the services</i>	4. Rapid launch to gain user feedback for further development maintained by management

The higher and aggregate classifications of the theory-guided content analysis of the workshop feedback questionnaire answers are presented below.

**Table 7** Theory-guided content analysis of the feedback questionnaire.

Theory-guided content analysis of the feedback questionnaire	
Higher classifications	Aggregate classifications
<i>Learning by doing</i> , creating new layers of knowledge, knowledge transfer, enhancing knowledge absorption capacity	1. Accumulation of knowledge and service readiness with “learning by doing” training
Increasing process innovation, <i>cultivating innovation culture</i>	2. Enhancing process innovation and innovation culture
<i>Ecosystem collaboration</i> , internal collaboration within the university	3. Service-related collaboration with internal and external partners
Internal co-creation on various service topics	4. Internal co-creation for service refinement

### 3.7 Validity and reliability

Reliability and validity are key aspects of evaluating research. Reliability refers to the trustworthiness of research from the point of view of repeatability. It refers to the point to which a particular action such as data collection and analysis methods, produce similar results if it is repeated. With reliability, it is possible to assess how repetitive the study would be in the hands of another researcher, and whether similar results could emerge again. (Eriksson & Kovalainen, 2015, p. 304; Saunders, 2007, p. 149). There may be several factors that impair reliability in the study. Errors and prejudices related to the participants and the subject or the observer's own activities can challenge data collection and analysis methods (Saunders, 2007, p. 149).

Validity refers to the assessment of how accurately the findings of the research describe and explain what happened in the research.

With validity, the researcher can conclude that the results produced in the research are valid, supported by evidence and data, and represent the phenomenon that was studied. In qualitative research, according to the tone of the validity description, the goal is specifically to provide assurance that a particular report or description is valid (Eriksson & Kovalainen, 2015, p. 305). Threats to validity may include events in the operational history of the phenomenon under study and their disregard, disregard for testing conditions, omission of study participants, and unforeseen challenges to the study (Saunders, 2007, p. 150-151).

The reliability of the study was strengthened by familiarizing oneself with the case company and its need to develop a new service process. Reflecting on existing research, literature and the background of the case company, the aim was to create a holistic process that is implemented reliably. The interviewees were selected as widely as possible within the NSD process to obtain a broad view on the phenomenon under study and the interviews were transcribed precisely and accurately.

The feedback questionnaire was conducted as interviewer-administered inquiry, which allowed the researcher to send it out to a limited group of people, and also allowed the observation of the number of non-respondents, which has a positive effect on the reliability of the study (Saunders, 2007, p. 357). Accurate analysis of the gathered data has also been used to support the creation of reliable results. However, it must be noted that the researcher is employed in the case company and worked as part of the NSD process as an action researcher, although the NSD process was not familiar to the researcher beforehand. The interviewees and the participants of the workshops were familiar to the researcher, which may raise a question on the reliability of the answers gathered. It has also been stated that exploratory research and questionnaires do not traditionally complement each other due to the need for large amounts of open-ended questions to gather data (Saunders, 2007, p. 356). Also, the findings cannot be considered absolute as the action research study is situation dependent.

## 4 Findings

This chapter summarizes the empirical findings of thesis. The semi-structured interview data regarding the NSD process theory will be reviewed first, followed by analyzes of the feedback questionnaires in the KIBS theory context. The results are analyzed under each theory-driven theme and combined in the final synthesis section as a framework for creating and implementing a NSD process in a KIBS firm.

### 4.1 Creating a NSD process

Each of the three interviews are analyzed in a similar manner and then bundled up into coherent themes that follow the theoretical generalizations of the NSD process: design, analysis, development, and launch. The interviewees' quotes are marked as Interviewee 1, 2 and 3.

#### 4.1.1 Design

Regarding the design phase and **identifying the needs and understanding the background of the NSD process**, the interviewees revealed that the creation of entrepreneurial services has been attempted at Helsinki Think Company on several occasions, but a clear structured process had not been established due to lack of prioritization and staff who would have the resources to develop the services in question. However, a clear motivation for entrepreneurial services had been identified and entrepreneurial activities were reflected in Helsinki Think Company's strategy. At the core of the design phase was the need to create structured new services as an incremental innovation, by extending an existing service line.

*In history, there were a few people either interested in the topic or entrepreneurs themselves building these services. It was always relying on the expertise of one or two people working with us. There were three people working on this project, but they all left. (Interviewee 1)*

*There was a clear motivation for creating the new service. When any of the customers come in, they can ask for help, there's quite a large team that needs to be ready to help. Given our mission and strategy, there was a definite need for focusing on entrepreneurial activities. (Interviewee 2)*

In the entrepreneurship society, entrepreneurship was historically reflected mainly through programs, events, and collaborative workspaces. There was a desire to spread entrepreneurial knowledge held by individuals into a core competence of the entire company.

*In practice entrepreneurship is mostly embedded in our programs as a continuous part of what we do. For example, if we have a challenge concerning a specific field or a theme, we want people to develop business ideas around or ideas that they could take to the commercial field within certain theme or area. (Interviewee 3)*

*If there are people coming in either by email or into our coworking spaces, it is important to let our staff do the sparing sessions, by asking questions and if they don't know the exact answers, finding out what they can be doing to help when the entrepreneurs come in. (Interviewee 2)*

The **idea generation** of the entrepreneurial services was emphasized as co-creative campus-specific services, bringing together people from different study backgrounds, and solving different challenges while creating a wider societal impact. The grassroots activities of the entrepreneurship community should support entrepreneurs and students to harness their ideas and innovations for societal use. Bottom-up agency and enhancing academic entrepreneurship as a solution to government cutting from research are seen as essential ideas behind the new entrepreneurial services.

*What we could offer our customers are campus specific services. That would be super helpful when you would have individuals who have studied within the same field as you, they would recognize specific pain points that the customer is feeling and trying to develop solutions together. (Interviewee 3)*

*--- Since there's been a lot of talk about how funding has been cut from research so pushing academic entrepreneurship can compensate for that loss. (Interviewee 3)*

The **formulation of new service objectives** included Helsinki Think Company's core mission of putting academic knowledge into practice. Objectives for the new service were related to supporting people at the university on their journey to entrepreneurship, helping individuals interested in entrepreneurial topics find the right information and creating more research-based solutions.

*We want to create a service where the entrepreneurs can easily ask for help and we can provide it. There is a lot of entrepreneurial information available but it's quite scattered. Our goal is to make it understandable and easily accessible. Of course, one of the goals is to help as many entrepreneurial minded as possible. (Interviewee 1)*

*Our main goal or mission is to take academics to action and what we do is impact entrepreneurship. It's not something that you do for the commercial success or making a lot of profit, that's not the goal. Every single employee that we have has known this since they started. (Interviewee 3)*

Helsinki Think Company aims to promote both the livelihoods of academic entrepreneurs and the global, social, and environmental impact of their business. It is essential to support all forms of entrepreneurship, be it consultants, photographers or health entrepreneurs who make use of Helsinki Think Company's coworking facilities. An interviewee articulated that Helsinki Think Company's operations act as a sustainable counterweight to startup-based, fast-growing "unicorns" that may hire large amounts of labor when they grow, but which may have a negative impact on society in the event of bankruptcy.

In **identifying potential users and customer groups**, the interviewees responded fairly unanimously. The target group division had already started within the NSD development team, and therefore the customer segments appeared clear to the interviewees. Academic entrepreneurs were identified as a core customer group, and other important service users were listed as students, researchers, and those interested in entrepreneurship. All customer groups are connected by an academic link.

A more limited target group is students and entrepreneurs who have started their careers under the roof of University of Helsinki, as there is plenty to do in the field of supporting entrepreneurship and enhancing their position within the university. The customer segmentation also defined that the more traditional entrepreneurs, such as restaurants or hairdressers, are not among the core customer groups that Helsinki Think Company primarily targets. However, non-academic entrepreneurs are not excluded from the scope of services, as quite a variety of entrepreneurs can utilize Helsinki Think Company's the coworking facilities, participate in programs and request for entrepreneurial sparring assistance.

*Our goals are to have students from different levels: undergraduates, masters and PhD students who are basically researchers. Then we have actual entrepreneurs, and that it is a mixed bunch of people. We don't keep away those people who come to work in our coworking spaces because they are free of use, and we encourage every single type of entrepreneurship because the more variance we have, the more sustainable the society is. (Interviewee 3)*

Plenty of differences have been identified in the past regarding the needs of different user groups, which Helsinki Think Company should respond to with the help of the entrepreneurial services. The University of Helsinki offers a wide range of study options and the entrepreneurs reaching out for the services might have rather specific issues in mind. Individuals operating at the university also possess inconsistent views on entrepreneurship. Clarifying the needs and support opportunities of different customer groups must be therefore focused on.

*We have a lot of people who work in our coworking spaces and are striving for entrepreneurship, the peer support would mean a lot to a lot of people. Especially in our university there's a lot of hesitance and disinterest towards entrepreneurship so having people who might be in the same field or in the same campus and doing same things, would mean a lot. (Interviewee 3)*

Regarding **concept development**, the NSD process team had a relatively clear image of the concrete service development process.



At the core of the new services is the digital Entrepreneur's Knowledge Bank, on the basis of which the Head of Entrepreneurship and the researcher had created an outline and breakdown on an online Miro board tool. The concept is intended to evolve and expand over time and the Knowledge Bank will serve as its first step, a minimum viable product with only features that meet the needs of early customers.

*We are building a Knowledge Bank for starting entrepreneurs to follow on and find information on and activities in Finland or wherever in the world. Then providing framework for mentoring, that is the next step in the process. Then having a support system set in the staff so having a channel on for example on Slack where you can ask questions or guidance if you need it. (Interviewee 2)*

*A good way of creating these services is building a hypothesis, build the early services, release the services, and develop the later services. The first version is to create the first MVP. In the first version the role has been to ask questions from us, so we have been identifying those. (Interviewee 1)*

#### **4.1.2 Analysis**

During the analysis phase of the NSD process, the **project authorization**, schedules, and phases were defined. A designated team was assigned to work on the service development process and turn the process into a project, such as the programs and events that the entrepreneurship society traditionally executes. Helsinki Think Company's essential operating principle is giving and sharing ownership with which clear roles and responsibilities must be shared across the team to successfully develop and launch a project. Project teams are given full confidence to implement projects in the company, and the staff can get involved in any project according to their enthusiasm. In the case of the development of the entrepreneurial services in particular, the priority was to have the team take ownership of the process and support its internalization among the staff and later customers.

*When I was first interviewed for the position, it was mentioned that there is a need for entrepreneurial activities and someone who can pull all the strings together. Of course, Helsinki Think Company is thinking of entrepreneurial activities and helping entrepreneurs all the time but there was still a job to do on that side.*

*That picked my interest, and I introduced the idea that I can be of help on that department. (Interviewee 2)*

*Now since we have a team of experienced and interested individuals, it has been a pleasure to share responsibility to develop the services from the base where they were before. Since we are so program and project oriented, the development of these services has been left behind because there is something more urgent to do. Now we have people who own the project, so it doesn't get left behind. (Interviewee 1)*

*It is good to give ownership and share responsibility to the team but also involve the rest of the staff, because they will be working on the services but don't necessarily have the experience. The core team has the experience and can structure it in a way that is understandable for the rest of the staff. (Interviewee 1)*

However, the project authorization was not completed without challenges, and learning experiences arose in relation to, for example, the flow of information, responsibilities, and internal resources. At the planning stage of the process, essential information did not always reach the core team, and the independent work steps performed by individuals were not always reported to the entire team. However, the challenges were identified and addressed, and future risks of project ownership were considered as the process progressed.

*There have been questions of ownership of who owns this project and then some hierarchies of positions have been miscommunicated in my opinion. So far, everything has been solved by giving feedback in a way that our company encourages it to be given. (Interviewee 2)*

*There's a lot of room for miscommunication and misunderstanding how those services could be maintained. There's a risk for diffusion of responsibility. You might expect that somebody else is taking care of some services when actually they don't have enough resources, but that person doesn't know because they're not at the job at the same time and have time to discuss it. (Interviewee 3)*

**Need for change** regarding the new entrepreneurial services was initiated both within Helsinki Think Company and externally.

It is alleviating for the whole entrepreneurial community to move from ongoing ad hoc activities to coherent service coverage with the support of clear guidelines. Entrepreneurs have previously been supported on a case-by-case basis and mentored and sparred on the basis of individual questions and challenges. There was no single comprehensive service to support entrepreneurs but a need for a path for individuals interested in entrepreneurship. New needs had also emerged within the customer segments: with the effects of covid, the threshold for becoming an entrepreneur has increased, and at the same time there is an increasing need the need for low-threshold entrepreneurial information on how to navigate in the unstable operating environment.

*There are hopes and guidelines from the University of Helsinki's and city of Helsinki's side. They are happy if we create a service, and they don't have to do it. It's better to do it in a way that works for our team, and not start from their point of view. We want to be the easy step to take. (Interviewee 1)*

**Analyzing Helsinki Think Company's existing practices and processes** and benchmarking of other similar actors was crucial in the NSD process planning. Helsinki Think Company's own existing materials, presentations, guides and plans for entrepreneurship and its services were reviewed and prepared for development in accordance with the objectives of the process. The websites, services, materials, and programs of the existing Finnish entrepreneurship societies were researched, and their main contents, offerings and ways of operating examined. The core team went through the unifying and differentiating factors related to other entrepreneurial societies and set out to enhance Helsinki Think Company's unique perspectives and factors for entrepreneurial services.

*Advantage is definitely that anyone can just hop in and start providing these services to the core users of our spaces and services. (Interviewee 2)*

*The customers will be given everything for free. They don't have to give equity of their companies; they only have to invest their own time. The time that they invest will hopefully get back to them as advice, as contacts, programs, and information on whatever they are needing in that point. That is definitely an advantage and that is one of the core values of our services to provide them for free.*

*I think that is nowadays quite rare that accelerators or incubators don't take equity of the companies or give mentorship for free. (Interviewee 2)*

In addition to the new entrepreneurial services, the interviewees highlighted Helsinki Think Company's programs, workshops, methods, and collaborative spaces as factors that bring added value to entrepreneurs and those interested in entrepreneurship. Giving visibility to university-based entrepreneurs and companies is also a factor in the interests of both Helsinki Think Company and entrepreneurs and often the entrepreneurship society is approached from inside of the university. It was pointed out that providing academic research a channel for visibility creates opportunities to translate scientific research for a wider population to understand, making Helsinki Think Company's operations attractive in the KIBS field.

*The benefit of having really good quality entrepreneurial services is a benefit for the whole society because we are able to bring forth the importance of research and sciences, how it can provide a lot of insights for the future and for the society (Interviewee 3)*

In addition to analyzing the benefits of entrepreneurship services and current operating models, **bottlenecks of current operations** were highlighted. Concerns were raised about both internal and external factors. Lack of resources within the entrepreneurial community to support entrepreneurs, widespread campuses, lack of face-to-face support, and a lack of knowledge of the entrepreneurial society within the university emerged. Entrepreneurship has not been Helsinki Think Company's main focus or emphasis, and now that the situation is changing, the company does not have enough resources to help all entrepreneurs. Since the company has only had a few employees specializing in entrepreneurship and there are four campuses to operate on, it is impossible to be of help everywhere. As the pandemic eases, there is also a great need for face-to-face sparring, get-togethers, and other community-building events for the campus entrepreneurs. The interviewees found it worrying how little organic idea exchange has taken place during the pandemic.

The loose connection between the entrepreneurial community and the university, which has emerged as a significant and somewhat surprising bottleneck, is also a theme that should be addressed in terms of the visibility of entrepreneurial services and the cooperation of the actors in general.

*I've heard this so many times from our CEO. She's been in meetings and there has been some university people attending and they've discussed "How it would be great to have an entrepreneurial service and a hub where they could go to and innovate things" and then she is always like "Yeah we're still here, we've been here for almost 10 years, you still don't know us?" It's a bit sad. (Interviewee 3)*

#### **4.1.3 Development**

The development phase was started with an extensive UX design process implemented by the company's Chief Marketing Officer. The purpose of the process was to expand the **service delivery** reach and to further refine the customer segments that operate on the university campuses. Four different personalities were identified for each of the university's four campuses through surveying and interviewing the community members, alumni, current space users and students. The extensive UX design process was created, according to the interviews, to benefit the entire organization and its operations. Through the identification of the "campus archetypes", Helsinki Think Company strives to provide increasingly targeted content and activities related to its services, programs, and events to attract people working on the campuses.

*The knowledge that we gathered throughout the process is something that we'd try to share across the organization. A lot of people are aware of the needs and demands of our community members and that is also internalized in the development process of the entrepreneurial services, I hope. There's a lot of valuable information that should be known by everyone. But of course, that is something we should discuss more openly and take time for it. Thus far the biggest lesson is that we don't have yet enough resources to do it. (Interviewee 3)*

Although the customer segments were defined and identified in detail, the interviewees emphasized keeping customer segments constantly in mind, asking for feedback, and listening to customers throughout the new service development process. One interviewee stressed that it is important to know what the end users are asking and form patterns of questions that can be utilized in the service offering. After the launch, customers should be involved to explore and try out the services such as the Entrepreneur's Knowledge Bank and entrepreneur sparring sessions and ask for direct feedback and development aspects. However, co-development with customers was emphasized in the interviews only after the service launch, in which case further development of the existing service could be effectively addressed according to the comments of customers and other service users.

*The customers are the users aren't they. They are going to be the user of the service and our spaces and programs and thus forth. Customers definitely have a great role in it. These services cannot be developed without having them in use by the customers themselves. (Interviewee 2)*

The company's **internal development activities** were found to be at the heart of service development. In the interviews, it was stated that everything that is done in the company takes place in teams and only a handful of matters are decided outside them. The importance of internal development for the implementation of the finalized services was thought to be the most significant out of all actions in the NSD process. In understanding the content of the entrepreneurial services and encouraging the staff to support entrepreneurs, the staff's responsibility, learning by doing training methods and open communication were considered essential. According to the interviewees, everyone can take responsibility for internal development work according to their interests, and there must be open discussion about development opportunities, the progress of the process and the upcoming steps in the company's internal channels, such as Slack. Learning by doing was raised as an effective way of internalizing new information, as it allows the staff to experience how entrepreneurs might think and how they can be supported in practice. The company's mission of putting academics into action was emphasized as an effective approach to internal development work.

*We have now started to create some guiding documents for different topics. It's important to create step by step instructions and even some video material on tips and tricks on different ways to make the services understandable and encourage people to understand that they can help the end customers. (Interviewee 1)*

*The people are trained to use the tools, so we are planning on doing the training for an entrepreneur's perspective. Letting the people think about the steps they need to take when they are building their own company. That is the initial idea in a nutshell. To give them hands on experience, so not only focusing on one person giving the advice to the entrepreneurs coming in but actually getting the staff to the deep end immediately and learning by doing. By training, I think that is the main point. Essential is getting everyone onboard, the grassroots work done in the teams and coworking spaces that we are in. (Interviewee 2)*

The interviewees also expressed hopes for **development with external parties** with the new campus incubator program for the further development of entrepreneurship services. Launched in 2022, the program aims to generate 100 new research, development, and innovation-based businesses a year. It is hoped that the incubator program will also give Helsinki Think Company a clearer role in the entrepreneurial path, particularly in its early ideation stages.

From the perspective of **marketing efforts** for the new services, being widely presented in various digital channels was seen as a crucial part of the NSD process. As the new services will be published on Helsinki Think Company's website, the website optimization and the page's visibility must be in order. For marketing efforts, the name of the final services was brainstormed and made sure that it can be easily found via different search engines. The structure of the new service section on the website was redesigned and checked for functionality in different devices several times among the core team. It was also hoped that marketing-related support would be available, for example, from the university's career services and the Helsinki Innovation Services, which are actors in Helsinki Think Company's entrepreneurial ecosystem.

*Potential customers can find us from our website. It's a huge thing really, people don't really use business cards and we don't meet up with people that much because of covid.*

*SEO, and having a really good website makes a huge difference of people finding you and finding the right information. That's really important. (Interviewee 3)*

The interviewees also **identified internal and external challenges** related to the new service *development* phase. Here, too, challenges in internal information flow and available resources were found factors slowing down the development and maintenance of the new services. According to the interviewees, when the flow of information is blocked, there may be ambiguity regarding the entirety of the services and the advice given by the staff to entrepreneurs. The information outages were perceived to affect Helsinki Think Company more broadly than just in connection with the entrepreneurial services. The issue was linked to the part-time nature of work that is characteristic to Helsinki Think Company. One of the interviewees suggested benchmarking the practices of other similar actors as a solution to the internal challenges.

*We don't have the "watercooler banter" we would have if we'd be working at the same place and that kinds of things would come up at those conversations. But we're working remotely, doing little hours, and doing our own thing so there is a lot of room for miscommunication and misunderstanding. (Interviewee 3)*

Reaching those interested in entrepreneurship and the rigidity of the University of Helsinki as an identifier of entrepreneurship opportunities and a distributor of entrepreneurial information were identified as key external challenges. According to the interviewees, people have various ways of approaching entrepreneurship and its practices. Helsinki Think Company must clearly combine information and services related to entrepreneurship with its values to communicate the benefits of entrepreneurship clearly to its target groups. The university has been identified hesitant towards entrepreneurship, and entrepreneurship does not seem to be discussed at the university in general. Hesitance towards entrepreneurship is found within the university staff, the course coordinating operators, and at lectures. The challenge is that students with entrepreneurial interests or ideas may not have a single entity through which to effectively promote such actions further.



*When it comes to the university crowd, they don't recognize entrepreneurship as a career path for them because our university is really research-based and kind of rigid. They don't encourage you to go and test things and it's not very practical. The students are also a bit risk averse. The specific types of people who apply for the university and the different fields of sciences should be something we should consider a bit more when we try to develop the entrepreneurial services. (Interviewee 3)*

#### **4.1.4 Launch**

The launch of the entrepreneurial services was originally scheduled to take place in late November, but it was delayed until early January due to website development challenges. The core service development team decided that the launch in January is better suited to the themes of starting the new year than under the Christmas holidays. The **actual launch of the entrepreneurial services** was carried out by preparing a release date from the company's marketing calendar for various social media content and by sending information related to the launch extensively in advance to various stakeholders, campus entrepreneurs and other customers in the entrepreneurial community utilizing email lists. The company's own employees were also encouraged to share information about the launched services on their own social media channels and other networks. The latest Knowledge Bank content was finalized, and the functionality of the services website was verified. According to the interviewees, the new services, related information, and tools had to be made available online quickly in January so that they could be brought to the attention of people who needed them, and Helsinki Think Company could receive developmental feedback from a wide range of stakeholders.

*Whenever there is new information, putting it out on the internet and on our web pages, letting people know that there are updated information or service propositions or anything like that. (Interviewee 2)*

Information about the new service was also widely disseminated to the awareness of the head organization, the University of Helsinki. According to the interviewees, strengthening cooperation and visibility within the university's channels would be crucial for larger customer groups and those interested in entrepreneurship to find the new services.

*I hope that the university will take us in in their intranet Flamma, which is for the university employees, but it is still a valuable place to be present. Since there is a lot of people working at the university who don't even know that we exist. (Interviewee 3)*

Despite reaching out to various actors within the university, only a few actors within the organization reacted positively or were interested in cooperating more extensively to disseminate and highlight information on the new services further. However, several other stakeholders in the field of entrepreneurship commented and shared information about the entrepreneurial services or provided suggestions for improvements to its content. Received development proposals were immediately processed.

Plenty of fruitful discussion about the concrete **goals of the finalized services** emerged during the interviews. However, concrete indicators used to determine the functionality of the service development process remained rather deficient. Interviewees identified that the goal metrics should be considered more closely among the service development team in the future. In the light of the identified challenges in the company's operations, the creation of a set of indicators for the service process and service quality were seen as important.

*Quantified goals for the finalized services are not yet set. But given the state and flow of the entrepreneurs coming in this fall and next spring, I would like to set goals to how many entrepreneurs we either contact or connect with on a yearly basis or at least follow the numbers and see where we are at. I would love to give quality content, information and help to the people who need it, I think that is a very good goal. And doing it in an efficient and a humane way as well. So not only providing information that you can google but actually getting in contact and getting face-to-face action as well. The goal metrics need to be figured out in the future, definitely. Now we are more on the softer side of the goal setting. (Interviewee 2)*

In addition to setting goals for the finalized services, the **post-launch service management** based on customer feedback was considered particularly important. Service content and other website information should remain in a simple format so that it can be updated whenever necessary within the working hours of the part-time employees.

Holding people responsible for the totality of the services in the future will also be a priority for the sustainability of the services. In the interviews, it was stated that the startup field is constantly changing, and a lot of new information is being generated. With Helsinki Think Company's resource-based approach, only the most important information that does not require major updates should be found online in the Entrepreneur's Knowledge Bank.

*It is also important to improve it constantly. Not all the time but to keep in mind that it needs improvement. There are always new things that could be added and it's important to have it up to date. Our team is full on young experts and people are staying with us for approx. two years. To make it sustainable there needs to be a few people who are responsible for the services. (Interviewee 2)*

*We can do new information "cards" since we have different cards for different segments of customers. We can create new cards that resonate with the changes that are happening within the field. Having enough resources to do so is essential. Also having employees who are passionate about developing the services, that is the most important thing. (Interviewee 3)*

A post-launch review session was organized among the service development team a couple of weeks after the service release. The stakeholder and customer feedback received, development ideas and ways to streamline the process were discussed, and the maintenance of future services and the next steps were decided on. Two people were decided responsible for continuing the service development and maintenance of the service entity after the launch. The marketing department took responsibility for sharing new information on social media whenever the Entrepreneur's Knowledge Bank is updated. It was decided that the regular meetings regarding the entrepreneurial services were terminated, and issues related to further development would be addressed through internal channels in the name of efficiency. With regard to managing the maintenance of the services in the future, both the own enthusiasm of the company's team members and the management's responsibility were emphasized. The interviewees considered it crucial to find solutions for staff knowledge maintenance of the services and being able to provide support for entrepreneurs.

*It comes down to the CEO and COO and perhaps me. The management has to take the responsibility of developing services and maintaining them and also maintaining the understanding of the employees of how those services are being developed. (Interviewee 3)*

*When we are hiring people, training them firsthand and then keeping the information flow efficient. (Interviewee 2)*

To address the resource gap created by part-time employment in the future, **maintaining staff's understanding of the services** was highlighted. It was stated that quick and easy-to-internalize ways of understanding the needs of entrepreneurs should be provided to the staff. Maintaining internal communication has at times been perceived as challenging in terms of detailed themes that require maintaining and development. Teaching materials, versatile internal content and workshops should be organized to increase understanding, strengthen learning experiences, and foster a sense of community within the organization.

*Some materials you could access 24/7 and that doesn't require someone's presence would be super useful. But at the same time within our organization when there's a lot of people determining their working rhythm the most beneficial way to make sure everyone internalizes the same information would be having crash courses or common lessons that are held for every single one who's within the organization. (Interviewee 3)*

## **4.2 Implementing a new service in a KIBS firm**

The workshop feedback questionnaires were analyzed similarly as the interviews but mirroring the KIBS characteristics presented in the literature review: knowledge, innovation, collaboration, and co-creation. At this stage of the process, the newly created and developed entrepreneurial services were implemented as a concrete part of Helsinki Think Company's service offering. The questionnaire responders' quotes are marked as R1-13 as there were 13 sets of answers in total.

#### 4.2.1 Knowledge

The accumulation of knowledge was important in the implementation of new entrepreneurial services in the case company. The workshop participants consisted of people with different backgrounds regarding entrepreneurial knowledge, some of to whom all information was new, while some were repeating what they had already learned. The **learning by doing** method of operation utilized in the workshop worked as an integral part of knowledge internalization, when Helsinki Think Company's employees developed imaginary entrepreneurial ideas forward in a guided step-by-step process. The responders felt that they gained plenty of new knowledge regarding the questions that can be asked from entrepreneurial-minded customers, how the entrepreneurship-related challenges can be broken down into smaller entities, and how to find professional confidence to support the entrepreneurial-minded when they come to Helsinki Think Company's spaces for advice. The responders felt that accumulation of knowledge was supported by the tools, methods and the Entrepreneurs Knowledge Bank utilized in the workshop, through which information could be searched for if necessary. Changing one's perspective to the role of an entrepreneur brought the staff new insights to their facilitation work.

*I learned the idea of lean canvas and that a novice entrepreneur can be approached with fairly logical question packs and get the idea broken down into easy-to-handle blocks. Answering the questions also seemed logical, giving the feeling that almost anyone can answer them, and that entrepreneurship is not rocket science. (R9)*

*The training reminded me how many different small and big things are involved in starting a business. I also realized how useful it is to use very simple methods like mind maps and brainstorming with others when it comes to brainstorming and working at the grassroots level. Starting a business is a big step, but you can start very small and simple. (R10)*

**Creating new layers of knowledge, transferring knowledge, and enhancing knowledge absorption capacity** were also significant themes that emerged within the feedback questionnaire responders.

Gathering new knowledge over an existing foundation and knowing how to apply new knowledge into practice helped the responders to strengthen their overall knowledge of the entrepreneurial services. The new knowledge collected on top of the existing knowledge basis was related to, for example, entrepreneurs' financial solutions and the various forms of entrepreneurship. According to the responders, the workshops supported knowledge transfer as the staff were able to share skills, ask questions and brainstorm different entrepreneurial topics together in teams. This knowledge transfer can also be utilized in future discussions and sparring situations with entrepreneurs. Knowledge absorption capacity was reinforced by confirming memory traces and consistent patterns that could be formed based on the workshop practices and the concrete process the participants went through. Creating time and facilities for searching and sharing entrepreneurial information also generated a favorable environment for the emergence of new solutions and innovations.

*The entrepreneurial services were quite familiar to me, but this served as a good recap and refreshment. The workshop sections were good and brought to mind new nodes in starting a business. (R5)*

*I can support entrepreneurs with a memory rule regarding the topics of the day to remind what were the things to ask. (R4)*

#### **4.2.2 Innovation**

In terms of innovation, the implementation of entrepreneurial services as part of Helsinki Think Company's core offering can be seen as an incremental process innovation that expands a particular service's line further. In this case, innovation can be seen in the creation of a new online service and developing techniques, tactics, and new ways of service distribution to further support entrepreneurs in various situations. With the new services, a separate support e-mail was created for Helsinki Think Company, through which the designated entrepreneurship team can be approached with development suggestions to the services, questions, or to book a sparring session.

In the past, entrepreneurship-related contacts have been directed through internal communication channels to one or a couple of employees who have had enthusiasm or expertise regarding entrepreneurial issues. A direct route for contacting the designated team clarifies the service process and reduces miscommunication when multiple employees do not ball the messages from entrepreneurs from one person to another.

In terms of **increasing process innovation**, the responders felt that with the workshops, they internalized plenty of ways to provide and deliver the service to entrepreneurial-minded customers. The responders mentioned that in the future they will be able to support customers in various stages and challenges of the entrepreneurial path, by asking open questions at workshops, guiding customers to the right information, and having an open discussion with those who need help. The responses indicate that the workshops have provided a framework for providing support and information.

*Using open-ended questions in training, discussing more with entrepreneurs as they enter Helsinki Think Company's coworking spaces. (R11)*

*I can direct entrepreneurs towards the right information, inspire by asking developmental questions, and help articulate ideas. Facilitating brainstorming feels easier, and I feel like I can rely more on my own skills. (R10)*

*After the training, I believe I will be able to provide those interested with the necessary basic information or an information package to support entrepreneurs in their activities. I feel that I am also now more able to spar with entrepreneurs about their ideas and activities. (R5)*

Another innovation-related theme that arose from the questionnaire responses was the **cultivation of innovation culture**. The responses called for more similar training and workshops on broader themes in entrepreneurship. Entrepreneurial support materials in various forms were also desired to refine the lessons learned and the practical implementation of the service. Helsinki Think Company's part-time employees often carry out several project simultaneously, and lessons learned in a single workshop may be left behind if not utilized at regular intervals.

Therefore, embracing innovation internally, taking action, preparing for facilitating conversations and supporting the entrepreneurial-minded is essential. Maintaining an innovation culture in relation to certain themes is also strongly the responsibility of the company's management. In the case of Helsinki Think Company, the allocation of resources, such as time, to joint innovation sessions plays an important role, and it is up to management to determine what themes are to be promoted and developed within the company.

*Although the content of the first part of the workshop was interesting, the information remained partly detached, e.g., how to apply your work to everyday life and make sure that the information you have just learned is not forgotten if entrepreneurial sparing is done only occasionally. (R8)*

#### **4.2.3 Collaboration**

The collaboration needs related to the implementation of the new services can be divided into **ecosystem collaboration** and **collaboration on the university campuses**. The responders had numerous ideas and suggestions for collaborators, and ecosystem collaboration should be extensive and related to a variety of entrepreneurial themes. According to the responders, Helsinki Think Company should collaborate around the entrepreneurial services with various actors in social and responsible entrepreneurship, other entrepreneurship societies in Finnish universities to consult broader entrepreneurial aspects, angel investors and financial professionals, various legal entities, research-intensive firms, and small entrepreneurs. None of these collaboration opportunities are impossible to arrange, as Helsinki Think Company has existing extensive networks created through various programs, events and occasions with which resources could be used to promote impact entrepreneurship. However, strengthening these relationships requires systematic work and the maintenance, which should be reflected in the day-to-day work of the case company.

*Entities with which start-ups are also encouraged to get in touch. Thus, if, for example, funding & information is directed in a certain direction, it would be good if there were already networks in these directions. (R12)*



*In my opinion, with completely different parties promoting entrepreneurship, such as think tanks, municipalities, various trade unions in the field (with a lot of entrepreneurs), and, of course, with the university's various campuses and faculties. (R2)*

According to the responders, collaborating inside the university of Helsinki was strongly associated with entrepreneurs working on the four campuses. Campus entrepreneurs work at Helsinki Think Company's facilities, and it is Helsinki Think Company's staff's responsibility to maintain the facilities they use, strengthen their community, and help them with various challenges when needed. The responders found that there would be potential in campus entrepreneurship collaborations, and the cooperation proposals were to share their stories and steps in the entrepreneurial paths with Helsinki Think Company's staff. Respondents mentioned concrete actors and possible topics for cooperation with them.

*Helsinki Think Company could possibly compile examples of entrepreneurs on the site and talk about their career paths and the story of how they became entrepreneurs and what stages they went through. (R9)*

#### **4.2.4 Co-creation**

Regarding co-creation, the responders found a number of entrepreneurial themes that should be addressed internally to refine the service delivery and provide a more comprehensive service to entrepreneurial-minded customers. The needs of **internal co-creation** related to the new services can be divided into forms of entrepreneurship, entrepreneurial financing options and bureaucracy. Among the different forms of entrepreneurship, the responders mentioned a more detailed examination of cooperatives and light entrepreneurship, a review of business models and design processes when putting up a business, and a broader mapping of entrepreneurship services.

Regarding the financial aspects, responders wish for internal co-creation and concrete clarification on financing options for early-stage entrepreneurs, entrepreneurs' taxation, budgeting, and funding. Themes related to financial aspects were popular among the

respondents, and it is common for those interested in entrepreneurship to come and ask the Helsinki Think Company staff about entrepreneur's financial issues.

The responders interested in the themes of the bureaucracy placed particular emphasis on gaining knowledge of company law and where to find up-to-date information on entrepreneurial law matters to guide the entrepreneur-minded towards the right knowledge. All of the above-mentioned internal co-development topics to develop the comprehensiveness of the service can be organized in different forms: either as workshops where teams of staff work together on the designated topics, as lectures, brainstorming sessions, or lessons with external professionals.

*I would still like to learn in concrete terms what it is like to be an entrepreneur, what it takes, what to take into account in invoicing, taxation, etc. What is the difference between being a shareholder, owning a company, a business name, etc. (R2)*

*Matters related to corporate finance, where you can find information on sector-specific regulations, e.g., privacy issues or food law. (R11)*

*It would be nice to learn even more about financial expertise and support for the activities of an early-stage company. How, where, and when to help, support, contacts? (R5)*

After the workshops, internal co-creation was continued by dismantling the feedback questionnaire and prioritizing the development themes that arose from the material. Strengthening the community, collaboration with campus entrepreneurs and enhancing the service delivery were chosen as priorities for further development. Entrepreneurship team members on the Viikki campus started piloting the "Entrepreneur's Toolbox", which includes a variety of small additional benefits for the campus entrepreneurs and a list of Helsinki Think Company's equipment through which various professional supplies can be borrowed. If the pilot is found successful, the Toolbox is expected to spread to the other three campuses expanding the entrepreneurs' range of services and acting as a concrete co-created service.

### **4.3 Synthesis – Creating and implementing a NSD process in a KIBS firm**

This synthesis combines the previously discussed analysis sections and reviews the topic of developing and implementing a NSD process in a KIBS firm holistically in the case company's context.

Regarding the creation of a NSD process, the four NSD process phases by Johnson et al., (2000), design, analysis, development, and launch emerged clearly from the interviewees' responses regarding the overall creation of the new entrepreneurial services. In the design phase of the services, the interviewees disclosed themes defined by Johnson et al's (2000) NSD process theory such as idea generation, formulation of new service objectives, and concept development. Data-driven themes, such as identifying potential users and customer groups, and the needs and background of the NSD process also emerged. The concluding aggregate dimension of the design phase "identifying the need for structured services for defined customer segments" strongly combines the emerging need for new service development with the customer perspective, as Edvardsson & Olsson (1996), emphasized in their NSD theory. A concrete NSD strategy was not defined in the design phase of in addition to the services objectives, but the process was viewed from a project-like perspective.

In the analysis phase, project authorization, analysis of existing practices and processes, need for change, and bottlenecks of current operations were identified. The aggregate dimension of the analysis phase "project authorization, examining and benchmarking existing practices", capsulizes the clear process ownership, identification, and comparison of resources to other actors in the field. This condensation largely follows the themes of the analysis phase of Jonson et al's (2000) NSD process theory. In reference to Froehle & Roth's (2007) NSD project focus theory, internal and external challenges related to Helsinki Think Company's intellectual, organizational, and physical resources were found in the interviews in addition to the challenges with the University of Helsinki. As the interviews revealed, the spread of entrepreneurial knowledge, the organizational resources to support entrepreneurs and the physical locations of Helsinki Think

Company pose challenges, particularly for the implementation and maintenance of the service development process.

“Internal and external development through training and marketing efforts” were highlighted in the development phase of the NSD process. Clear similarities to Johnson et al’s (2000) NSD process development phase themes emerged from the interviews, such as service delivery, internal development, and marketing efforts for testing the services. Also in the development phase, resource-related challenges were identified that were perceived to have potential implications for the internal and external development of the NSD process. Therefore, according to the interviewees, enhancing cooperation and creating synergies with the head organization, University of Helsinki, and effective allocation of internal information flow and working hours is essential for Helsinki Think Company's new service development efforts.

The aggregate dimension for the launch phase, “Rapid launch to gain user feedback for further development maintained by management”, includes the interviewees’ consensus that although the services will be published, they will need to be further developed with the support of service users, customers, and Helsinki Think Company’s management. According to the interviewees, although the goal setting of the ready-made services had not gone beyond soft goals, it is essential to get the users to use the services quickly to implement customer-oriented development work in the future. Management's responsibility for maintaining the services and the staff's understanding of the content of the services were emphasized in connection with the launch of the services. According to Edvarsson et al (2013), management should consider the role of NSD project managers in supporting the competencies of the NSD team and clarify how co-creation with the customer is ensured in the implementation of the NSD process. While the NSD project leader has a clear role and responsibility for the process, the management must ultimately ensure the efficiency of the process, the visible customer perspective, and existing resources even after the development process is launched.

Implementing a NSD process in a KIBS firm was done by accumulating the staff's knowledge and service readiness with training, enhancing process innovation and internal innovation culture at Helsinki Think Company, finding opportunities for service-related collaboration with internal and external partners and utilizing internal co-creation for service refinement. Helsinki Think Company's staff's knowledge of the new services was enhanced with concrete learning experiences, training and experimenting with entrepreneurial themes, as Miles et al, (1995) suggest. The questionnaire responders claimed that new knowledge and ideas were created and shared actively, as Zieba et al's (2017) study on increasing knowledge related to innovation in organizations examined. Enhancing knowledge absorption capacity to internalize external knowledge and transferring knowledge to one another in the workshops were utilized in accumulating knowledge and enhancing readiness to put the new services into practice.

In the new service development process, innovation emerged as incremental process innovation, an extension of an existing but scarce service line (Johnson et al., 2000). In Helsinki Think Company's case, the innovation arose from an internal development initiative, containing an enhanced way of producing and distributing entrepreneurial services to various customer segments (Santos-Viljande, 2013; Cabigiosu & Campagnolo, 2018). Enhancing process innovation and innovation culture were key themes that emerged from the responders' comments. A service process innovation developed to meet the needs of a changing operating environment and cultivating the organization's internal culture to create more room for innovation creation were seen as essential innovation actions. From Doloreux & Shearmur's (2010) innovation process roles, facilitating and developing internal innovation onwards to customers and operating as a messenger of innovation when sharing the information related to the new service around the wider entrepreneurial ecosystem can also be combined with the case company's service innovation activities.

Ecosystem collaboration and internal collaboration within the head organization were considered crucial actions. Responders were of the opinion that co-operation is needed and that there are plenty of parties to collaborate with. In the case of Helsinki Think Company, the locality of the service process innovation plays a significant role in collaborations. Since the company operates as part of the head organization, University of Helsinki, in various science centers around Helsinki, the dissemination of academic knowledge and regional co-operation with academic and entrepreneurial actors is rather natural. In this case, as Savic (2020), and Hidalgo & Herrera (2020) claimed, the geographical location of the KIBS firm is crucial, as operating on the university's campuses focusing on different disciplines is a suitable platform for regional cooperation, which is also actively pursued in the case company.

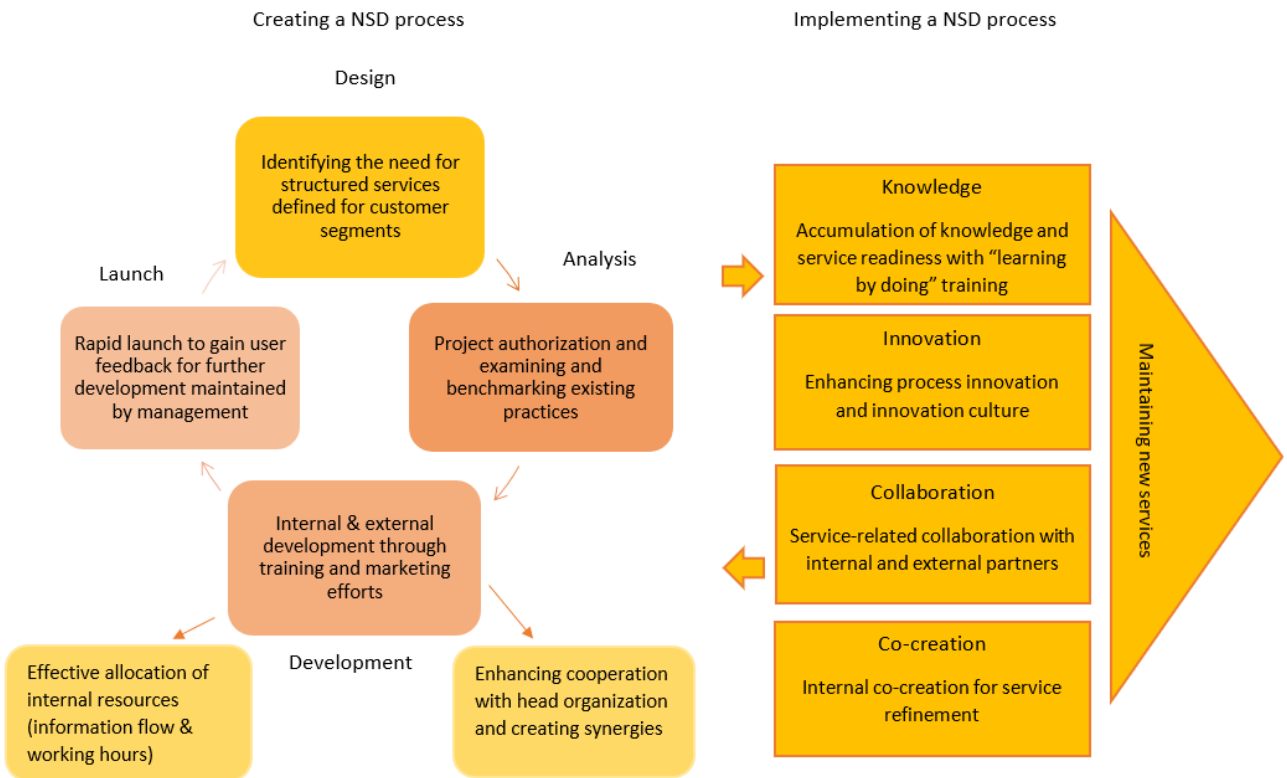
Co-creation was mainly perceived as internal co-development opportunities around a number of different entrepreneurial topics. In the case company, internal co-creation is utilized as a means for more holistic sustainable innovation (Santos-Viljande et al., 2013). However, as Ramaswamy & Ozcan (2014), Doloreux et al., (2018) and Cabigiosu & Campagnolo (2018) claim, co-creation with external parties and customers is essential in new service development in KIBS. In the case company's situation, extensive customer co-creation was seen as critical, but its implementation through feedback, sparring and other co-operation was considered important after the launch of the so-called minimum viable product, which can be further developed in co-operation with customers and stakeholders.

To conclude the analysis, it can be stated that typical for a KIBS firm, Helsinki Think Company actively develops around various themes, innovations, and ideas as the working habits strongly support co-development in teams. Both internal and external development work has a significant impact on Helsinki Think Company's new service development and implementation of the services. When the teams are small and the working hours vary, clear processes and wider forces are needed to take important development themes forward into the larger ecosystem.

Operating under the university also brings its advantages to the case company's operations, and as Doloreux and Frigon (2020) claim, there is a positive relationship between universities and P-KIBS innovations, portraying the importance of tacit knowledge transition between KIBS firms and university actors. Collaborations around the new services are therefore important for knowledge transfer and holistic service delivery, but as a large actor, the university can act as a barrier to large-scale collaboration and service development.

The knowledge and financial barriers to effective KIBS processes presented by Amara (2015) are also partially demonstrated in the case company, as entrepreneurship-related rigidity was found to be vast, and financial support for the entrepreneurial society is limited, creating circumstances to high employee turnover and limited spread of entrepreneurial knowledge. When existing employees change jobs and new employees are recruited in a rather fast cycle, entrepreneurial information must be available in an easily internalizable format. Thus, enhancing cooperation with the head organization and creating synergies will play an increasingly crucial role in the future development of services, as the university is the channel through which the services of its subordinate KIBS firm should spread. As entrepreneurship has been raised as a strategic theme at the University of Helsinki and related activities are expected to increase in various ways, Helsinki Think Company's management must also ensure that entrepreneurial themes and the new entrepreneurial services are maintained effectively in the future.

It is the responsibility of the company's management to ensure the effective allocation of internal resources such as active information sharing and working hours to serve entrepreneurial entities in the future. Since the target company's KIBS-related policies and practices are already built to support the accumulation of knowledge, new innovations, collaborations, and co-creation for new service implementation, these aspects should be nurtured within the university and resources should be allocated to ensure the development work's continuity in the future. The framework below concludes the NSD process creation and implementation in the case company.



**Figure 12** A model for creating and implementing a NSD process in a KIBS firm.



## 5 Conclusions

This study was conducted to find out **how to create a new service development process for a KIBS firm and how to implement the new service in practice**. The study began by an introduction to the topic, discussion of the motivation and research gap behind it and finally setting the research questions and describing the structure of the thesis. The literature utilized in the study consisted of two main themes: Knowledge Intensive Business Services (KIBS) and New Service Development (NSD).

First, KIBS were defined and then examined from the dimensions observed on the basis of its core research. Then, key features recognized in KIBS, knowledge, innovation, collaboration, and co-creation were discussed and reviewed through various studies and standpoints. Although knowledge and innovation emerged most clearly in the reviewed KIBS research, collaboration and co-creation were also identified as distinct dimensions of the KIBS processes. Finally, general obstacles in KIBS processes were identified. The literature regarding KIBS helped shed light to the characteristics and operations of the case company of the study and created understanding of the entity where the new services were implemented.

Next, NSD was reviewed starting from the history of the discipline. When examining the definitions of the core literature themes, it should be noted that both P-KIBS and NSD, evolved from the shadow of their so-called "sister disciplines", T-KIBS (Technology-based services) and NPD (New Product Development) (Miles et al., 1995; Biemans, 2016). After defining NSD, the NSD process was presented from the perspective of service design and service innovation and new service innovation categories were identified (den Hertog, 2010 & Johnson et al., 2000). The general NSD process cycle that covers the core NSD themes: design, analysis, development, and launch, was brought forth (Johnson et al., 2000). The simplified version of this process cycle was utilized as the main NSD theory for this study and adapted in the researcher's own framework. After this, key dimension in the New Service Development practices were presented from the process, competency, service innovation, customer, service offering, performance, capability, and process involvement perspectives.

It could be stated that NSD theory can be approached from a large number of perspectives. Finally, NSD process management practices were discussed. At the end of the literature review, the two theoretical themes were brought together in one model, creating a framework for the creation and implementation of the NSD process at a KIBS firm. The model served as a guideline for the analysis phase of the study and operated as part of defining the thematic categories of the analyzed data.

The datasets were analyzed utilizing theory-guided content analysis where the analysis begins with data-driven analysis and continues with the NSD and KIBS theory models guiding the finalization of the analysis. In the analysis phase of the thesis, a total of eight aggregate classifications were found from the two data sets, which consisted of three interviews and two rounds of workshop feedback questionnaires. The entirety was divided between the research questions: the NSD team interviews specifically addressed the themes related to the creation of the NSD process and the workshop feedback data from the case company's employees focused on the implementation of the process from the perspective of KIBS company characteristics. The aggregate classifications that occur in the finalized model summarized both the data and the theory-driven content themes.

Aggregate classifications that emerged from the interviews: *Designing the NSD process by identifying the need for structured services for defined customer segments, project authorization & examining and benchmarking existing practices, internal and external development through training and marketing efforts and rapid launch to gain user feedback for further development maintained by management* summarized the interview data regarding the whole new service development process comprehensively and consistently. Concerns about internal resources and collaboration with the head organization were also openly raised as bottlenecks hindering the process.

Aggregate classifications for the implementation of the NSD process in a KIBS firm are concluded as *accumulation of knowledge and service readiness with "learning by doing" training, enhancing process innovation and innovation culture, service-related collaboration with internal and external partners and internal co-creation for service refinement*.

The employees of the KIBS firm also agreed on the implementation methods in many respects, but their responses also provided varied and even surprising suggestions on e.g., collaborative partners and ways to maintain the new services. Some of the themes of the analysis were partially overlapping, but this did not affect the overall outcome.

It can be stated that the final model resulting from the analysis does not contain profound or surprising conclusions and is partially general. However, in a situation in which creating a new service has been proved challenging, staff's working hours vary, and working with the head organization can be slow and uncertain, the means of service development and implementation must be simple and easy to put into practice. An operator like Helsinki Think Company benefits from a clear framework and uniform operating methods that can be effectively executed and maintained. In this study, complex or heavy frameworks and models would not have served the case company's purpose. In its current form, the case company can utilize the created model to better understand the service development process and its implementation and make the process of creating new services a journey that can be replicated with the same logic regardless of the service.

## **5.1 Theoretical implications**

The activities of Finnish entrepreneurial societies have not been studied extensively, and therefore this study adds value to the perception of the operating principles, ecosystems, and service development activities of entrepreneurial societies. The exploratory nature of this study helped create new insight into a specific phenomenon of creating and implementing a NSD process while considering the characteristics typical to a KIBS firm. No such study has previously been conducted for this particular case company.

This thesis mainly contributes to the existing NSD and KIBS theory with the framework that combines the entirety of creating and implementing a NSD process in a KIBS firm.

The framework can be utilized as such to support new service development and implementation in a KIBS firm. The framework helps to outline the stages of new service development and it can be filled with company-specific operating methods, but at the same time follow a structured process while paying attention to KIBS specific characteristics when implementing and later managing the process.

## **5.2 Managerial implications**

With this study and its results, several managerial implications emerged. First and foremost, it is important to ensure the strategic side of the new service development process: management should clarify how the process is linked to the top-level strategy and whether it needs its own strategy to ensure long-term and measurable performance. The strategy is also linked to the goal setting, in connection with which both the management and the service development team must be aware of how the success and further development of the process is measured. To avoid forgetting to monitor the process and getting caught up in other acute projects, the indicators should be clear and easy to maintain.

In addition to the strategic objectives and goal setting, management must ensure that the NSD team has the necessary resources and capabilities to complete the process. The division of responsibilities, roles, and process timeline should be clear for the entire team, especially if the processes are done on a project basis. Particular attention should be paid if the company's teams have limited time-related resources. In the event of resource shortages, management should ensure that the support and collaboration opportunities with the head organization are seamless. It is also important to ensure that the project team has enough time to shape the process, move from one stage of work to another and stay on schedule even in the case of internal development work. Internal development work should be reacted to with the same seriousness as projects or programs with external partners and clients, as it can, in the long run, increase the attractiveness, visibility and effectiveness of the firm's operations.

Finally, management must ensure that service development is maintained even after the actual service is published. Although the further development of the service after the launch would not take the same amount of time as the service development itself, management must ensure that the staff understands its content and is able to support the defined customer segments with the services on the long run. As the analysis of this study indicated, there are several low-threshold ways for maintaining and refining the launched services, and firms should actively co-create with their staff to select the most appropriate methods to ensure the continuity of the development work.

### **5.3 Suggestions for future research**

There is a lot to explore regarding this topic, as both NSD and KIBS are rather novel research fields. First, since KIBS firms such as entrepreneurial societies operate on relatively similar principles, a broader cross-case comparison could be conducted of their service development processes or alternatively, study the ways that the societies support and co-create with their communities. This study found that entrepreneurial societies can act as vibrant connection points to larger entrepreneurial communities where new knowledge, innovation and research can be effectively disseminated and utilized to create impactful new products and services. It would also be interesting to obtain data on new service development of entrepreneurial societies in foreign universities, as only domestic societies were benchmarked in this study, and thus information on the activities of similar foreign actors was missing. This study also revealed key challenges within the head organization and the KIBS firm operating under its authority. Therefore, further study and comparison of university spin-off KIBS firms and their relationship with the head organization with its challenges and benefits could be a fruitful research topic.

This study utilized a simplified four-stage NSD process framework, and more in-depth research could be conducted in relation to KIBS firms utilizing multi-step NSD process models or NSD strategies as drivers for development activities. As a separate NSD strategy was not developed to support the process in this study, it was obscured what could have been achieved if there had been a strategy to follow.

Numerous research topics could also be developed from the actions of management and NSD process managers in service development processes. How to select appropriate policies, methods, and tools for service development and how to measure the success of a particular NSD process are topics that would benefit from more extensive research.

#### **5.4 Limitations**

As the study was conducted as a single case study, it is not possible to make a broad generalization based on it, for example in connection with the creation and implementation of service development processes of other P-KIBS companies or service companies in general. The study provided a micro-level overview of the service development activities of an individual KIBS company, but as KIBS firms are unique entities, it cannot be argued that the analysis findings could be utilized in any other similar development situation. A macro-level analysis would require a cross-case comparison of the creation and implementation of new service development processes in several entrepreneurial societies. A case company operating under the largest university in Finland and the city of Helsinki also brought special features to the research and therefore does not make it easily reproducible or generalizable.

To conclude, this research only offers a snapshot of a single firm's larger service development effort that will continue to evolve and change shape in the future and that is largely dependent on its actors. The research does not provide answers to the general steps of creating and implementing NSD processes but serves an overall picture on how to create and implement the process utilizing the means of co-development and action research.

## References

- Alanen, A. (2008, February 14). *KIBS-alojen keskittyminen Uudellemaalle tauonnut*. Tilastokeskus. [https://www.stat.fi/artikkelit/2008/art\\_2008-02-15\\_004.html](https://www.stat.fi/artikkelit/2008/art_2008-02-15_004.html)
- Amara, N., D'Este, P., Landry, R. & Doloreux, D. (2016). Impacts of obstacles on innovation patterns in KIBS firms. *Journal of business research*, 69(10), 4065-4073. <https://doi.org/10.1016/j.jbusres.2016.03.045>
- Asikainen, A. (2013). Innovation modes and strategies in knowledge intensive business services. *Service business*, 9(1), 77–95. <https://doi.org/10.1007/s11628-013-0219-5>
- Behara, R. (2000). " Process Innovation in Knowledge-Intensive Services" in *New Service Development: Creating Memorable Experiences*, Fitzsimmons, J. & Fitzsimmons., M. Thousand Oaks, CA: Sage, 138-151.
- Biemans, W. G., Griffin, A. & Moenaert, R. K. (2016). Perspective: New Service Development: How the Field Developed, Its Current Status and Recommendations for Moving the Field Forward: New Service Development. *The Journal of product innovation management*, 33(4), 382-397. <https://doi.org/10.1111/jpim.12283>
- Blaxter, L., Hughes, C. & Tight, M. (2010). *How to Research*. Open University Press.
- Bowers, M. R. (1989). Developing New Services: Improving the Process Makes it Better. *The Journal of services marketing*, 3(1), 15-20. <https://doi.org/10.1108/EUM0000000002478>
- Cabigiosu, A. & Campagnolo, D. (2019). Innovation and growth in KIBS: The role of clients' collaboration and service customization. *Industry and innovation*, 26(5), 592–618. <https://doi.org/10.1080/13662716.2018.1483823>

- Chichkanov, N. (2021). The role of client knowledge absorptive capacity for innovation in KIBS. *Journal of knowledge management*, 25(5), 1194–1218. <https://doi.org/10.1108/JKM-05-2020-0334>
- Cooper, R. G., Easingwood, C. J., Edgett, S., Kleinschmidt, E. J. & Storey, C. (1994). What distinguishes the top performing new products in financial services. *The Journal of product innovation management*, 11(4), 281–299. [https://doi.org/10.1016/0737-6782\(94\)90084-1](https://doi.org/10.1016/0737-6782(94)90084-1)
- Corsi, C., Prencipe, A., Rodríguez-Gulías, M. J., Rodeiro-Pazos, D. & Fernández-López, S. (2019). Growth of KIBS and non-KIBS firms: Evidence from university spin-offs. *The Service industries journal*, 39(1), 43–64. <https://doi.org/10.1080/02642069.2018.1436703>
- Costello, P. J. M. (2003). *Action Research*. Bloomsbury Publishing Plc.
- den Hertog, P., van der Aa, W. & de Jong, M. W. (2010). Capabilities for managing service innovation: Towards a conceptual framework. *Journal of service management*, 21(4), 490-514. <https://doi.org/10.1108/09564231011066123>
- Doloreux, D. & Frigon, A. (2020). Innovation in Knowledge Intensive Business Services (KIBS). *Canadian journal of administrative sciences*, 37(2), 122–134. <https://doi.org/10.1002/cjas.1525>
- Doloreux, D. & Shearmur, R. (2010). Exploring and comparing innovation patterns across different knowledge intensive business services. *Economics of innovation and new technology*, 19(7), 605–625. <https://doi.org/10.1080/10438590903128966>



- Doloreux, D., Turkina, E. & Van Assche, A. (2018). Innovation type and external knowledge search strategies in KIBS: Evidence from Canada. *Service business*, 13(3), 509–530. <https://doi.org/10.1007/s11628-018-00393-y>
- Edvardsson, B., Meiren, T., Schäfer, A. & Witell, L. (2013). Having a strategy for new service development - does it really matter? *Journal of service management*, 24(1), 25–44. <https://doi.org/10.1108/09564231311304170>
- Edvardsson, B. & Olsson, J. (1996). Key Concepts for New Service Development. *The Service industries journal*, 16(2), 140–164. <https://doi.org/10.1080/02642069600000019>
- Eisenhardt, K. (1989). Building Theories from Case Study Research. *The Academy of Management Review*, Vol. 14, No. 4., 532-550.
- Eriksson, P. & Kovalainen, A. (2016). *Qualitative methods in business research* (2nd edition.). Sage Publications.
- Fang, E., Palmatier, R. W. & Steenkamp, J. E. M. (2008). Effect of service transition strategies on firm value. *Journal of marketing*, 72(5), 1-14. <https://doi.org/10.1509/jmkg.72.5.1>
- Felsenstein, D. (1996). High technology firms and metropolitan locational choice in Israel; a look at the determinants. *Geografiska Annaler, Series B*, 78(1), 43-58. <https://doi.org/10.1080/04353684.1996.11879695>
- Fernandes, C. I. & Ferreira, J. J. M. (2013). Knowledge spillovers: Cooperation between universities and KIBS. *R & D management*, 43(5), 461-472. <https://doi.org/10.1111/radm.12024>

- Froehle, C. M. & Roth, A. V. (2007). A Resource-Process Framework of New Service Development. *Production and operations management*, 16(2), 169-188. <https://doi.org/10.1111/j.1937-5956.2007.tb00174.x>
- Gillham, B. (2000). *Case Study Research Methods*. Bloomsbury Publishing Plc.
- Gupta, S. & Vajic, M. (2000). "The Contextual and Dialectical Nature of Experiences" in *New Service Development: Creating Memorable Experiences*, Fitzsimmons, J. & Fitzsimmons, M. Thousand Oaks, CA: 33-70
- Helsingin Yliopisto. (2021). Strategia. <https://www.helsinki.fi/fi/tutustu-meihin/strategia-talous-ja-laatu/strategia-2021-2030/helsingin-yliopiston-strategia>
- Hidalgo, A. & Herrera, R. (2020). Innovation management and co-creation in KIBs: An approach to the ICT services sector. *Technological forecasting & social change*, 161, 120278. <https://doi.org/10.1016/j.techfore.2020.120278>
- Hsieh, K. & Tidd, J. (2012). Open versus closed new service development: The influences of project novelty. *Technovation*, 32(11), 600-608. <https://doi.org/10.1016/j.technovation.2012.07.002>
- Huggins, R. (2011). The Growth of Knowledge-Intensive Business Services: Innovation, Markets and Networks. *European planning studies*, 19(8), 1459-1480. <https://doi.org/10.1080/09654313.2011.586172>
- Hydle, K. M., Aas, T. H. & Breunig, K. J. (2016). Towards a framework for new service development practices. *Journal of Innovation Management*, 4(4), 55-67. [https://doi.org/10.24840/2183-0606\\_004.004\\_0005](https://doi.org/10.24840/2183-0606_004.004_0005)

- Jaakkola, E. & Hallin, A. (2018). Organizational Structures for New Service Development. *The Journal of product innovation management*, 35(2), 280-297. <https://doi.org/10.1111/jpim.12399>
- Jaakkola, E., Meiren, T., Witell, L., Edvardsson, B., Schäfer, A., Reynoso, J., Weitlaner, D. (2017). Does one size fit all? New service development across different types of services. *Journal of service management*, 28(2), 329-347. <https://doi.org/10.1108/JOSM-11-2015-0370>
- Johne, A. & Storey, C. (1998). New service development: A review of the literature and annotated bibliography. *European journal of marketing*, 32(3/4), 184-251. <https://doi.org/10.1108/03090569810204526>
- Johnson, S, Menor, L., Roth, A., & Chase, R. (2000). "A Critical Evaluation of the New Service Development Process," in *New Service Development: Creating Memorable Experiences*, Fitzsimmons, J. & Fitzsimmons., M. Thousand Oaks, CA: Sage, 1-32.
- Kelly, D. & Storey, C. (2000). New service development: Initiation strategies. *International journal of service industry management*, 11(1), 45-63. <https://doi.org/10.1108/09564230010310286>
- Kindström, D. & Kowalkowski, C. (2009). Development of industrial service offerings: A process framework. *Journal of service management*, 20(2), 156-172. <https://doi.org/10.1108/09564230910952753>
- Koshy, V. (2010). *Action Research for Improving Educational Practice*. A Step-by-step guide. Sage, London. Second Edition.

- Krupskaya, A. & Pina, K. O. (2022). Towards identifying knowledge bases in KIBS through their service development process. *Foresight (Cambridge)*, 24(1), 55-74. <https://doi.org/10.1108/FS-01-2021-0028>
- Leticia Santos-Vijande, M., González-Mieres, C. & Ángel López-Sánchez, J. (2013). An assessment of innovativeness in KIBS: Implications on KIBS' co-creation culture, innovation capability, and performance. *The Journal of business & industrial marketing*, 28(2), 86–102. <https://doi.org/10.1108/08858621311295236>
- Lee, H., Seol, H., Min, H. & Geum, Y. (2016). The identification of new service opportunities: A case-based morphological analysis. *Service business*, 11(1), 191-206. <https://doi.org/10.1007/s11628-015-0300-3>
- Liu, S. (2009). Organizational culture and new service development performance: Insights from knowledge intensive business service. *International journal of innovation management*, 13(3), 371-392. <https://doi.org/10.1142/S1363919609002340>
- Liu, S. (2011). The relationship between strategic type and new service development competence: A study of Chinese knowledge intensive business services. *Service business*, 6(2), 157–175. <https://doi.org/10.1007/s11628-011-0122-x>
- Liu, Y., Lattemann, C., Xing, Y. & Dorawa, D. (2019). The emergence of collaborative partnerships between knowledge-intensive business service (KIBS) and product companies: The case of Bremen, Germany. *Regional studies*, 53(3), 376–387. <https://doi.org/10.1080/00343404.2018.1510178>
- Marzi, G., Ciampi, F., Dalli, D. & Dabic, M. (2021). New Product Development During the Last Ten Years: The Ongoing Debate and Future Avenues. *IEEE transactions on engineering management*, 68(1), 330-344. <https://doi.org/10.1109/TEM.2020.2997386>

- Maylor, H. & Blackmon, K. (2005). *Researching business and management*. Palgrave Macmillan.
- McNiff, J. & Whitehead, J. (2013). *Action research: Principles and practice*. Routledge.
- Menor, L. J. & Roth, A. V. (2007). New service development competence in retail banking: Construct development and measurement validation. *Journal of operations management*, 25(4), 825-846. <https://doi.org/10.1016/j.jom.2006.07.004>
- Miles, I. Kastrinos, N., Flanagan, K., Bilderbeek, R., Den Hertog, P., Huntink, W. & Bouman, M. (1995). Knowledge-Intensive Business Services: Users, Carriers and Sources of Innovation. A report to DG13 SPRINT-EIMS. The University of Manchester.
- Nurmi, P. & Paasio, K. (2007). Entrepreneurship in Finnish universities. *Education & training (London)*, 49(1), 56-65. <https://doi.org/10.1108/00400910710729884>
- Oliver, D. G., Serovich, J. M. & Mason, T. L. (2005). Constraints and Opportunities with Interview Transcription: Towards Reflection in Qualitative Research. *Social forces*, 84(2), 1273–1289. <https://doi.org/10.1353/sof.2006.0023>
- Pellizzoni, E., Trabucchi, D., Frattini, F., Buganza, T. & Di Benedetto, A. (2020). Leveraging stakeholders' knowledge in new service development: A dynamic approach. *Journal of knowledge management*, 24(2), 415-438. <https://doi.org/10.1108/JKM-10-2019-0532>
- Ramaswamy, V. & Ozcan, K. (2014). *The co-creation paradigm*. Stanford Business Books.

- Rodriguez, M., Doloreux, D. & Shearmur, R. (2015). Innovation strategies, innovator types and openness: A study of KIBS firms in Spain. *Service business*, 10(3), 629–649. <https://doi.org/10.1007/s11628-015-0286-x>
- Santos, J. B. & Spring, M. (2015). Are knowledge intensive business services really co-produced? Overcoming lack of customer participation in KIBS. *Industrial marketing management*, 50, 85-96. <https://doi.org/10.1016/j.indmarman.2015.04.005>
- Saunders, M., Lewis, P. & Thornhill, A. (2007). *Research methods for business students*. Pearson Education UK.
- Savic, M., Lawton Smith, H. & Bournakis, I. (2020). Innovation and external knowledge sources in knowledge intensive business services (KIBS): Evidence from de-industrialized UK regions. *Entrepreneurship and regional development*, 32(9–10), 805–826. <https://doi.org/10.1080/08985626.2020.1789751>
- Scheuing, E. E. & Johnson, E. M. (1989). A Proposed Model for New Service Development. *The Journal of services marketing*, 3(2), 25-34. <https://doi.org/10.1108/EUM0000000002484>
- Shearmur, R. & Doloreux, D. (2015). Knowledge-Intensive Business Services (KIBS) Use and User Innovation: High-Order Services, Geographic Hierarchies and Internet Use in Quebec's Manufacturing Sector. *Regional studies*, 49(10), 1654–1671. <https://doi.org/10.1080/00343404.2013.870988>
- Shostack, G. L. (1982). How to Design a Service. *European journal of marketing*, 16(1), 49-63. <https://doi.org/10.1108/EUM0000000004799>

Silva, M., Simões, J., Sousa, G., Moreira, J. & Wagner Mainardes, E. (2014). Determinants of innovation capacity: Empirical evidence from services firms. *Innovation (North Sydney)*, 16(3), 404-416. <https://doi.org/10.1080/14479338.2014.11081996>

TE-palvelut. (2022). *Services for new entrepreneurs*. <https://www.te-palvelut.fi/en/employers/for-entrepreneurs/services-new-entrepreneurs>

Tuomi, J. & Sarajärvi, A. (2018). *Laadullinen tutkimus ja sisällönanalyysi (Uudistettu laitos.)*. Kustannusosakeyhtiö Tammi.

Tseng, C., Chang Pai, D. & Hung, C. (2011). Knowledge absorptive capacity and innovation performance in KIBS. *Journal of knowledge management*, 15(6), 971–983. <https://doi.org/10.1108/136732711111179316>

Valminen, K. & Toivonen, M. (2012). Seeking efficiency through productisation: A case study of small KIBS participating in a productisation project. *The Service industries journal*, 32(2), 273–289. <https://doi.org/10.1080/02642069.2010.531260>

Wyrwich, M. (2019). New KIBS on the bloc: The role of local manufacturing for start-up activity in knowledge-intensive business services. *Regional studies*, 53(3), 320–329. <https://doi.org/10.1080/00343404.2018.1478076>

Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Sage.

Zeithaml, V.A. and Bitner, M.J. (2000) *Services Marketing: Integrating Customer Focus across the Firm*. 2nd Edition, McGraw-Hill, Boston.

Zieba, M., Bolisani, E., Paiola, M. & Scarso, E. (2017). Searching for innovation knowledge: Insight into KIBS companies. *Knowledge management research & practice*, 15(2), 282-293. <https://doi.org/10.1057/s41275-017-0050-1>

Zieba, M., Bolisani, E. and Scarso, E. (2019), "*Knowledge exchange between KIBS firms and their client's case study analysis*", Proceedings of the 20th European Conference on Knowledge Management (ECKM), 5–6 September 2019, Lisbon, p. 1152-1159.



## **Appendices**

### **Appendix 1. Interview questions**

#### **A semi-structured theme interview**

##### **Theme 1. Designing and analyzing entrepreneurial services (history and current state of the process)**

How was the planning of the entrepreneurial services started?

Why has Helsinki Think Company started to develop entrepreneurial services?

How was the need to develop the entrepreneurial services justified?

How would you describe the current state of Helsinki Think Company's entrepreneurial services?

How does the development of the entrepreneurial services support Helsinki Think Company's strategic goals?

What is essential in the entrepreneurial services' development process?

How is the entrepreneurial services' development process implemented in practice?

##### **Theme 2. Internal development process**

What should be given special consideration in the process of developing the entrepreneurial services?

How would you describe the lessons learned in the process thus far?

How would you describe the potential bottlenecks recognized in the process?

How are the responsibilities of the service development process divided among the staff?

How are the employees encouraged to internalize the new entrepreneurial services?

How is the staff trained to use the entrepreneurial services?

What are the advantages and disadvantages of a service development process involving company staff?

**Theme 3. External development process**

How are the target customer groups segmented?

How have the needs of potential customers been identified?

How do you see the role of the customer in the service development process?

How will the potential customers find the services?

What are the benefits the customer receives from the finalized services?

**Theme 4. Maintaining the services in the future**

How are the goals of the finished entrepreneurial services created?

How are the entrepreneurial services maintained in the future?

How is the further development of the entrepreneurial services managed in the future?

How is the staff's understanding of the entrepreneurial services maintained in the future?

What kind of teaching materials should Helsinki Think Company develop for the staff to get acquainted with the services?

## **Appendix 2. Workshop feedback questionnaire questions**

### **1. Knowledge regarding entrepreneurial services**

What kind of new knowledge did you learn or realize about entrepreneurial services in the entrepreneurship workshop?

### **2. Enhancing process innovation**

How could you utilize what you have learned in the workshop to support entrepreneurs in the future?

### **3. Internal co-creation through workshops and training materials**

What else would you like to learn about supporting entrepreneurs? What content or concrete exercises (materials, training, etc.) should Helsinki Think Company offer to develop your skills?

### **4. Collaboration with internal and external parties**

With whom should Think work together on entrepreneurial themes? (e.g. campus entrepreneurs, wider entrepreneurial ecosystem, etc.)

### **5. Additional questions**

What grade would you give to the entrepreneurship workshop?

Would you like to leave additional questions or comments to the organizers?