CONFLUENCE OF SERVICE AND INTERIOR DESIGN

A CASE STUDY

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Abstract

Interior design projects are often focused on the aesthetics and functionality of a space while service design is applied separately on the services or products within the space. The present Master's thesis aims to explore the potential connection between service and interior design, and the way these design disciplines can enrich each other. This study argues that interior design projects can benefit from the use of the service design tools and methods of linking space with services.

The theory section of the present thesis discusses the topics of design thinking, service design, interior design, and their relation to each other. The focus is on the processes, methods, and tools of design disciplines. The discussions show that processes, tools and methods of both design thinking and service design have been extensively studied, while less attention has been paid to the topic of interior design processes, methods, and tools in academic research. Most information about interior design processes, tools and methods is available in non-academic literature. Furthermore, the confluence of interior and service design has been studied even less. The goal of the thesis is to close these research gaps and answer the main research question of the study, which is: how can service design and interior design be combined?

Qualitative research methods were actively used in the thesis, where experts' interviews helped to explore the topic and case study was used as the core method. The case study includes several research methods and tools from both interior and service design, such as benchmarking, observation and interview.

The study demonstrates that interior design projects can benefit from the use of service design methods and tools. The case study results reveal that by involving service design within interior design projects, it is possible to improve the service providing process by turning the space into the continuation of the service. In addition, the use of design thinking allows to create new transdisciplinary tools by combining various existing tools from service and interior design to better fit the needs of the project at hand.

KEYWORDS:

Interior design, service design, design thinking, service design methods and tools

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1

INTRODUCTION

The introduction explains motivation for the research and briefly observes a background of the selected topic of the thesis. Furthermore, the chapter covers research goals and research gaps related to this study. In addition, main research methods are observed, and their use is justified.

1.1 Motivation for the research

In 2018, I decided to change my career and took an interior design course as a part-time study at Helsinki Design School. The course was held in a format of applied education and shortly it became evident that more research-based approach to support interior design decisions was needed. At the same time, I was doing a MBA program at Turku University of Applied Sciences where service design was introduced as a part of studies. While learning more about service design, it became evident that service design serves as a tool for evaluating and measuring the interior design practices.

My first experience of such a combined approach was during service design co-creation course at Turku University of Applied Sciences, where, with a group of students, we introduced a service spatial tool which was later successfully applied during our workshop. As a result, I became interested in the idea of combining both interior and service design and started to look for more data regarding such kinds of research and studies. This is how the topic of the Master's Thesis got chosen.

The thesis covers interior and service design as well as the way spaces can be designed to meet end-user needs. It explores different kinds of techniques which service and interior designers use for interior design projects of commercial spaces. The thesis includes a case study aimed at showing how interior and service design methods and tools may be combined in practice. The literature review shows that in Italy and Belgium this subject had already been explored to a certain extent, and new study programs for students interested in service and interior design were created to put architecture and interior design at the service of the user to create and improve user experiences. (Van Geetsom, 2018.)

Another early finding was a series of Serv.Des. conferences, which were established as a scientific multidisciplinary event to exchange knowledge within service design and service innovation studies. In 2018, Serv.Des.2018 was held in Politecnico di Milano (Italy) and focused on topics of both interior and service design. During that conference, the most meaningful statements concerning the correlation between service and interior design were made by representatives of international network of service design professionals to "explore the relationship between service design and the design of physical environments as the first attempt to prove a concept of a relationship" (Fassi, 2018). Essentially, this thesis relies on the research papers prepared at this conference as its main foundation. Thus, all findings support and confirm the author's interest in writing the thesis about the chosen topic.

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1.2 Background of the topic

Based on a literature review most articles regarding the combination of service and interior design are in one way or another connected to Politecnico di Milano (Italy) and Thomas More University of Applied Sciences (Belgium). These two universities are main locations where the topic in question is researched.

Van Geetsom (2018), an interior architect who teaches interior design at Thomas More University of Applied Sciences, in her paper describes how and when interior and service design became connected in educational process, and why in new educational strategies the interior design and the service design go together with each other. As an example, she talks about the Interior & Service Design studio which was established in 2014 in the Interior & Design department at Thomas More University of Applied Sciences (Belgium). In 2017 Interior & Service Design studio became a new curriculum within the framework of Space & Service Design.

According to this curriculum future interior designers are expected to design tangible spaces and objects in a way which creates better user experiences, therefore, from this point of view space or interior should be put at the service

of the end-user. In her article Van Geetsom (2018) also mentions a fact that there is still a gap in higher academic institutions regarding integrated approach to combining interior and service design. The author of the article also describes such a kind of multidisciplinary design approach, as a combination of service and interior design, applicable to projects for public service spaces – including elderly communities and hospitals, libraries, school buildings and others. The relevant approach may change an understanding of space, so space is no longer "considered as a container", but the most emphasis should be placed on the way space works. In other words, designers should not just concentrate on the visible elements of interior space, but also see space as service space, where design it based on the key values of service design, such as: user-centered, holistic, iterative and others. (Van Geetsom, 2018.)

In the course of the research students of the Interior & Service Design at Thomas More University of Applied Sciences (Belgium) conduct qualitative research, which is commonly based on interviews, brain storming, observations, workshops, cultural probes, customer bull's eyes and experience interview toolkits. Besides, such techniques as presentations, reports, personas, giga-mapping 3D visual models and other stakeholder-centered communication tools are applied in the research. Methods, used in the article, include purposeful sampling and case study based on the interior and service design real-life project. (Van Geetsom 2018.)

1.3 Purpose, goals and research questions

The purpose of this research is to study the connection between service design and (spatial) interior design and create, based on a case study, a toolbox of methods and tools, which will combine service design and interior design techniques. From this perspective, there are the following research question and sub-questions:

RQ: How may service design and interior design be combined?

SQ: Can interior and service design be used together through a design thinking approach?

SQ: What common ground is there between interior and service design?

The topicality of this subject is relevant to public areas, where space is no longer just space which may be observed separately from the service components, because space hosts the service and becomes a touchpoint (Van Geetsom, 2018). Space without services should be considered as an "inert container", then the defining aspect is how interior space looks. While space which contains some services becomes a dynamic system, it becomes a "space of services". In other

words, public sector environments become a part of the service itself and they should support or even facilitate the service through meeting needs of the enduser. That is why, from this perspective, functionality of a space as well as the way it feels and works significantly changes the meaning of the space. (Felix, 2011.) One more important aspect is illustrated by the discussion about poorly designed services from the spatial perspective – when such kinds of services appear to be not only unpleasant, but turn to be costly, too, because they require additional staffing for making things work (Felix, 2011).

Arguably, this thesis is important to reduce the research gap in the link between design disciplines. Furthermore, E. Felix (2011) in his article "Learning space service design" says that there "is a lack of integrated approach to designing services and spaces" in higher education. As a consequence, resulting from the initial findings most of the research is done for public spaces and there are few research papers about commercial spaces, therefore it was decided to select a case of use in commercial space.

Since both disciplines are practical, a particular hypothesis should be analyzed on solving real-life problems involving actual users and stakeholders (Van Geetsom, 2018). This is a reason why this thesis studies a real-life case and tests as many tools as possible to find effective and suitable techniques and approaches. The case is a small atelier and sewing accessories shop in Helsinki, called "Artenio".

Artenio Oy is a small sewing atelier and shop of sewing accessories, that was established in 2017 in a well-known Helsinki district of Etu-Töölö. The main services of Artenio Oy include tailor-made clothes, clothes repair, altering of clothes, sale of sewing accessories and fabrics, and online sale of PDF patterns (Personal communication, 14.3.19).

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1.4 Research methods

Quantitative and qualitative research are the two main methods used in studies. The quantitative research collects numerical data for explaining the phenomena. The collected data is usually analyzed by mathematical methods, the most popular of them is statistics, which is exploited in both natural and social sciences. (Muijs, 2011; Given, 2008)

Qualitative research methods are methods focused on studying human behavior and its reasons, they are concerned with "the nature, explanation and understanding of phenomena" (Ryan, Coughlan, Cronin, 2009). These research methods do not utilize statistical analyses or empirical calculations, they are interested in people's belief and experience (Haradhan, 2018). These types of methods are largely exploited in various academic disciplines and social

sciences. The most widely applicable methods of qualitative research are interviews, case studies, discourse analyses and ethnographic research (Muijs, 2011). Other examples of qualitative research methods include phenomenological research, grounded theory, action research. (Haradhan, 2018). Summing up, this thesis exploits qualitative research methods including desk research, benchmarking, observation, interview, and case study.

1.4.1 Desk analysis

Desk research is a starting point of most research projects. This method includes an overview of already existing research papers related to the topic of the study. Desk research works well to discover what has been researched about a specific topic. It also helps to identify research gap and possible research questions (Hague, n.d.). It helps researchers to formulate a research question and find the right methods for data collection and analysis. (Stickdorn et al. 2018.)

What is more, desk research allows analysts to collect secondary data from internal resources, such as the internet, libraries, government reports and others. Secondary data can also be referred to the data analysis which was gathered by someone else. Secondary data is a valuable resource in finding suitable data for each kind of research, as well as it is time-efficient, so studies progress more quickly without loss of quality or confusability. (Martins, 2018.)

Desk analysis has a crucial role in the preparation of this thesis as it covers and analyzes already existing studies, thus creating a foundation for the entire study. Desk analyses includes overview of accessible articles about the topic of this research. Topic related articles are gathered from internet resources and databases contained in the libraries and then analyzed. Apart from the above, the author performed the gathering of articles available in archives of the service design conference Serv.Des.

Serv.Des. is an annually organized conference, which was established as a Nordic conference with the Emergence 2007 Service Design Conference hosted by Carnegie Mellon University. Today Service Design and Innovation conference has grown into the international event, which brings together scientists and practitioners "to discuss, share and evolve the emerging discipline of Service Design, and design-related service innovation". In 2012, Serv.Des. was held in Helsinki in Laurea University of Applied Sciences, it was a part of the World Design Capital Helsinki 2012 program. (Serv.Des., n.d.) The Serv.Des. conference held in 2018 was devoted to the discussion about the connection between service and interior design, which is closely related to the topic of this thesis (Serv. Des., n.d.). In addition, carefully selected sources of secondary data are used to provide high-quality research.

1.4.2 Benchmarking

Benchmarking is a type of comparative analysis where best examples of parameters for conducting the analysis are taken as benchmarks (Mikhailova, 2001). It is also a method to evaluate and compare service or product to its competitors or other service providers. Comparison is usually done against service providers who are performing better than organization or service in question. Benchmarking offers a method to learn from examples and role models. The aim is to learn from best practices and gain improvements to own services and actions. Goncharuk and other researchers (2015) in their article "Benchmarking as a performance management method" calls benchmarking "one of the most well-known methods for business improvement."

"The key philosophy of benchmarking is the ability to recognize and acknowledge that someone is doing a better job, learn how it is being done and implement it in one's field of business" (Jetmarova, 2011). In other words, benchmarking can help when there is a need for improvement of company's performance, as a result, in a real-life situation it provides an opportunity to learn from best practices (Goncharuk, Lazareva, Alsharf, 2015).

In a highly competitive environment for small and middle-size companies with limited resources benchmarking becomes more common and more cost-effective, since it benefits from borrowing methods of implementation of the best practices from other more successful enterprises (Goncharuk, Lazareva, Alsharf, 2015). Benchmarking is like "looking at the best in the class" (Tuominen, 2016).

In this thesis benchmarking will be used for collecting information about competitors' services and products, and the results obtained will be compared to each other, consequently, improvement ideas for Artenio services will be collected. Six companies will be selected for benchmarking: Materials Oy – atelier and store, Suomalainen Nappitalo-Finska Knapphuset Oy – sewing accessories store, Villisilkki Oy – fabrics store and Eurokangas. These companies are all located in Helsinki according to Google review, they are the best service providers in the fields of tailor-made clothes and sellers of sewing accessories. Google reviews were created to provide valuable information about business to both business owners and their customers. It helps companies "to stand out in Google" (Google Support, n.d.). Some of the companies chosen based on Google reviews are companies with the same portfolio of services as Artenio, so they have both ateliers and stores, and others only sell accessories for sewing or fabrics.

The Google review-based selection is supported by the data, which states that companies with excellent reviews are more attractive and have more customers when compared to businesses with low review rating (Marchant, 2017). Online review correlates directly with online reputation of the company. There are at

least four major online platforms where customers can leave feedback and read reviews about businesses. These are Google, Yelp, Facebook, Tripadvisor and others (Brightlocal, n.d). According to some sources, "customers are likely to spend 31% more on products/services from businesses that have excellent reviews", 86% of customers read reviews about businesses and "negative review can drive away 40% of potential customers". With the growth of popularity of online reviews, customers today decide what product or service they would prefer to purchase guided by online review. If positive review increases a revenue of the company, a single negative review, on the other hand, may cost to the company around 30 lost customers (Marchant, 2017).

1.4.3 Observation

Observation as research method should include participant observation, as well as "covered ethnography and research work in the field" (Jamshed, 2014). Observation helps to collect data about people, processes, and cultures. This method is often used by researchers in social sciences to record human behavior. Observation can be used in both quantitative and qualitative research (Kawulich, 2012).

Observations are divided into the two main types: participant observation and direct observation. In participant observation researcher is involved in the research process as observer and participant. While in case of direct observation researcher participates in the process only as an observer (Kawulich, 2012). In this thesis direct observation is preferred to participant observation, as the researcher in a role of the observer can discover customers' pain points more clearly.

Observation "is one of the oldest and most fundamental research method approaches" (Smit and Onwuegbuzie, 2008). In this thesis direct observation is used to follow service process of Artenio. Results of the observation are used for both defining personas and mapping customer flow inside the researched physical space.

1.4.4 Interview

Interview is one of the most common research methods in social sciences. As a qualitative research method, interviews help to get into people's perceptions, understandings, and experiences. According to Ryan, Coughlan, and Cronin (2009) there are three different types of interviews.

The first type of interview is the structured interview. Structured interview implies use of an interview schedule and clear framework in order not to allow

the veer from the topic in question. Second type of interview is a semi-structured interview. This type of interview has a more flexible approach to the interview process. Semi-structured interview allows unanticipated answers by providing the open-ended questions. The third type of interview is an unstructured interview which excludes utilization of any specific framework or schedule. Unstructured interviews typically take the shape of a conversation where the interviewer and interviewee discuss a specific topic (Ryan, Coughlan, Cronin, 2009). There are no set answers to the questions and the interview follows the direction of the interviewee's responses (Moyle, 2002).

Researchers mention semi-structured interview as a preferable type of interview because interview questions might be prepared ahead of time while being flexible enough to give an opportunity for interviewee to express their own ideas in their own way (Alshenqeeti, 2014).

Interviews as a research method was used for gathering data during the case study. The goal is to have at least two interviews with the business owner, one before the start of case study and second - during the case study. The first interview will help to understand the main aspects of the business activity of Artenio company, and the second interview will help to learn more about details. A preferable type for these interviews is the semi-structured interview since not only it features a basic structure, but it is still flexible enough and provides an opportunity for interviewee to freely express their own thoughts following the direction of the pointed questions. Secondly, two additional expert interviews will be conducted during this study to involve professionals from service design and interior design fields. The goal is to get an overview of the current state of both interior and service design professions from the point of view of the research topic. These expert interviews will be conducted as structured interviews, due to the busy schedules of experts. The interior design expert is selected among one of the lecturers from the interior design study program at Helsinki Design School, and the service design expert is selected among professionals who have at least 2 years of experience of working in the field of service and user experience design. Salla Kontokorpi, interior architect from Helsinki, is representing the interior design field and Roman Lihhavtsuk, user experience designer from Helsinki, is representing the service design field.

1.4.5 Case study

Case study as a qualitative research method opens an opportunity for researchers to explore an activity, event, or a process in-depth. It is usually structured and includes the following aspects: the problem, the context, the issues, and the lessons learned (Haradhan, 2018). "A case study in particular makes it possible to observe and analyze phenomena as a single, integrated whole." "Case study

can serve to generate a new theory, which can then be tested immediately using measurable constructs and falsifiable hypothesis" (Gagnon, 2010.) Hereby case study examines data on micro level and presents data of real-life situations, which in turn provides an access to detailed understanding of behaviors of the subjects of interest (Zainal, 2007).

A case study is a core of this thesis, because the main goal of this research is to explore a connection between service and interior design in practice, and test whether these two disciplines may be used together in a real-life project. Case study supports chosen topics since it provides an in-depth overview of activity based on real-life situations. The case study of this thesis, as mentioned before, is a small-sized company, named Artenio.

2 THEORY

This chapter provides most established definitions of both interior design and service design and briefly observes theory of either discipline. Next, this chapter concisely explores the confluence of service and interior design through design thinking.

2.1 Design thinking

According to Dewitt and Mcluskie (2019), there are few key figures in the early design thinking literature. One of these key figures was Simon H. A., who had seen linking the design to the cognitive process, however he had not used a design thinking term. On the other hand, Cross N. "explored design in the context of knowledge rather than simply practice" (Dewitt and Mcluskie, 2019). Design thinking emerged in the 1970s and became a popular area of design research when Peter Rowe published his book called "Design Thinking" in 1987. (Ozcan, 2019)

Harry Katzan, a professor of Computer Information Systems at Savannah State University, in his article "Essentials of Service design" (2011) describes design thinking as follows: "...design thinking is a discipline that combines the designer's knowledge, sensitivity, and design perspective with technical feasibility and design ethics to assist a client in resolving a perceived need to provide value for the client and the designer." In other words, design thinking helps designers to work with the client to design services and products which will be offered to their customers (Katzan, 2011). The working procedure takes the shape of

close cooperation between the design team and the client's team to "produce a process that is experientially sound from the client's perspective for use with its customers" (Katzan, 2011).

A. C. Ozcan in his article "Thinking and Design with Design Thinking" (2019) describes design thinking as well expanded in diverse areas of design which can be used as an integral part of the design process (Ozcan, 2019). Another author defines design thinking as "a way of solving problems in business or society by using the concepts and methods common to design" (Yogo, 2019). In other words, design thinking is a way "of applying a series of processes as Intuitive hypothesis formation, Concept creation and Prototype verification techniques" applicable by designers for finding and solving problems. What is more, design thinking can be described as a "specialty area of thinking used only by designers". This area has been recognized as "knowledge", utilizable by people for solving diverse problems (Yogo, 2019).

Franki Lake in her article "Human Centered Design vs Design Thinking vs Service Design vs UX What do they all mean?" (2016) explains design thinking as "methodology of discover / design / prototype / test / repeat" on which designer should base their own user-centered design principles. She describes design thinking as a "highly collaborative, human-centered, and iterative approach to problem seeking and problem-solving". This approach relies on empathy, ideation, and experimentation to drive creation of innovative solutions that people would like (Lake, 2016).

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Design thinking process

Design thinking process is a process of identifying the problem and defining the solutions including prototyping and testing (Mueller-Roterberg, 2018). Several models of the design thinking process exist. Some of them may include three (HEC), others five (Dam and Siang, 2020) or six (Mueller-Roterberg, 2018) steps – phases. Both five- and six-phase models will be explained more later in this chapter.

Design thinking process can be described as a non-linear process, it means that this process can be carried out in a more flexible way if compared to linear process, where each next step logically follows previous in the pre-established order. Furthermore, flexibility of design thinking process means that designers are able to conduct more than one step at the time and prototyping can be made during the entire design thinking process. There are the following steps of the design thinking process: Empathize, Define (the problem), Ideate, Prototype and Test (Figure 1) (Dam and Siang, 2020).

According to Mueller-Roterberg, a professor of technology and innovation

management as well as entrepreneurship at Ruhr West University of Applied Sciences (2018), the design thinking process includes six steps within the iteration loop, such as: understanding, observing, defining the problem, finding ideas, developing prototypes and testing (Figure 2)., In other words, three first steps can be characterized as problem space and their aim is to describe the problem. Next three steps of the design thinking process are described as solution space, they help to identify solutions and explain how solutions are implemented (Mueller-Roterberg, 2018).

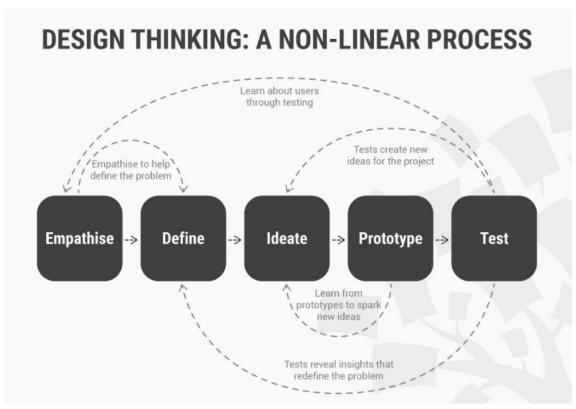


Figure 1. Design thinking process (Dam and Siang, 2020).

The first phase of the design thinking process on figure 2 is understanding. The goal of this phase is to understand the problem or need. It is also important at this phase to identify who must be involved into the process and what kind of technical perspective is necessary. Additionally, the problem or need should be described and formulated to define it in concrete terms (Mueller-Roterberg, 2018).

Observing is a next step of the design thinking process. During this step it is crucial to carry out a detailed research and on-site observations to understand general conditions, as well as to develop the exact definition of the target group. During the observation step it is important to develop understanding of the customer and his needs and behavior (Mueller-Roterberg, 2018).

The third phase of the design thinking process is defining the problem. During this stage "the finding should next be condensed to a single prototypical user whose problem / need is to be summarized in a clearly defined question" (Mueller-Roterberg, 2018). This phase is important for gathering good ideas to establish functions, features and any other element that will help designers to solve the problem. The phase of defining the problem leads designers to the next phase of the design thinking process – ideation (Dam and Siang, 2020).

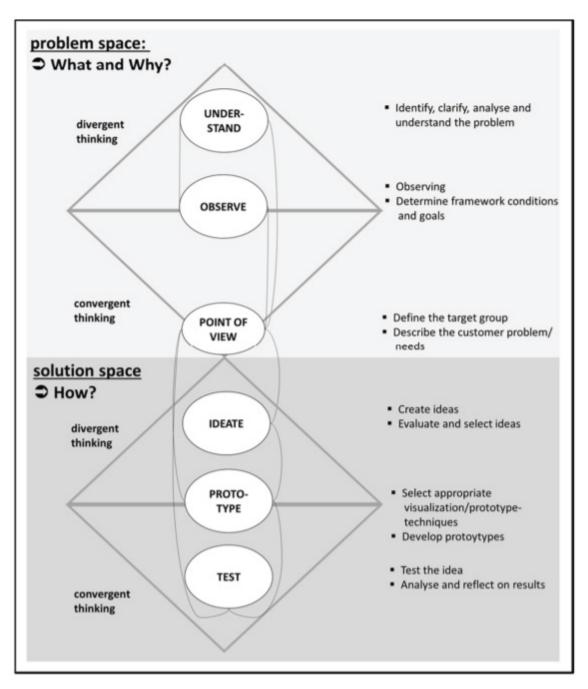


Figure 2. Process of design thinking (Mueller-Roterberg, 2018).

The aim of the ideation stage is to find and select ideas. It is commonly done by applying different types of creativity techniques. All ideas, created during ideation stage, should be analyzed in a customer-oriented manner. This type of analysis will help to identify weak points of ideas and select the best one(s) based on an idea evaluation (Mueller-Roterberg, 2018). Few different types of ideation techniques exist, they help designers to start "thinking outside the box". *Inter alia*, brainstorm and worst possible idea tools may be used for stimulation of free thinking (Dam and Siang, 2020).

Prototyping is the next phase of the design thinking process. "Prototyping is the act of making an idea more tangible; the passage from abstraction to physicality to represent reality – even if in a simplified fashion - and provide validations" (Vianna et al. 2012). During the prototype phase, ideas selected at ideation step should be visualized as soon as possible by using all available techniques. Ideas can be sketched, designed, modelled, or simulated (Mueller-Roterberg, 2018). All created prototypes can be tested right away within the design team. During this experimental phase it is important to identify all best possible solutions. At the end of a prototyping stage designers will have a better understanding of how real users will behave, what they will feel and think while interacting with the product (Dam and Siang, 2020).

Testing is the final stage of the design thinking process. At this stage ideas should be elaborated and tested. Testing ideas is also possible through further experiments and customer feedback (Mueller-Roterberg, 2018). It is also important to make alterations and refinements to deepen the understanding of the product and its users (Dam and Siang, 2020).

2.2 Service design

Service design was first introduced as an academic field in education and design research in the 1990s (Mager, n.d.). Service design had received little attention until 2002, when it appeared in practice and reappeared in academical world. In 2002 the first service design agency was founded by Chris Downs. Around the same time a study department dedicated to service design was open at Köln International School of Design. (Lenz, n.d.)

Nielsen Norman Group, the world leaders in research-based user experience, defines service design as "the activity of planning and organizing business's resources (people, props, and processes) in order to directly improve the employee's experience, and indirectly, the customer's experience" (Gibbons, 2017). Stefan Moritz in his book "Service Design. Practical Access to an Evolving Field" described that "service design helps to innovate (existing) services to make them more useful, usable, desirable for clients and efficient as well as

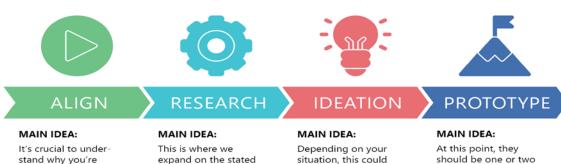
effective for organizations." (Moritz, 2005). Design Council, an independent charity and the United Kingdom government advisor on design points, state that "service design helps to improve existing services; it makes things work for people, it makes services more usable and efficient". (UK Design Council, 2010)

According to Marc Stickdorn, the author of an award-winning book on service design, and his colleagues the most popular definition of service design, mentioned by them in the book "This is Service Design Doing. Applying service design thinking in the real world" (Stickdorn et al. 2018), was the definition provided by Megan Erin Miller (2015) in her online article: "service design helps organizations see their services from a customer perspective. It is an approach to designing services that balances the needs of the customer with needs of the business, aiming to create seamless and quality service experiences. Service design is rooted in design thinking, and brings a creative, human-centered process to service improvement and designing new services. Through collaborative methods that engage both customers and service delivery teams, service design helps organizations gain the end-to-end understanding of their services, enabling holistic and meaningful improvements" (Stickdorn et al. 2018.)

service design helps organizations see their services from a customer perspective.

2.2.1 Service design project phases and design process

Project phases in service design are stages of the design process. These phases help to identify the main activity and scope of each stage. Mapping of project phases facilitates seeing progress and gives a sense of orientation, so mapping of the project phases is especially relevant for big projects. Project planning might include, for example, four (Figure 3) or five service design process phases, including: preparational phase or initial iteration, discovery or research phase, concept phase, prototyping phase, rollout phase, delivery, and in-production phase. (Stickdorn et al. 2018)



It's crucial to understand why you're embarking on this project and to ensure other stakeholders understand it as well. This is where we expand on the stated problem or opportunity and work to better understand the people involved in the service delivery process.

Depending on your situation, this could involve improving the current service or creating a new one.

should be one or two solid ideas from the ideation phase. The main idea of this phase is to prototype and test them.

Figure 3. Phases of service design process (Bradshaw, 2019).

The first phase of a service design project on Figure 3 is a preparational phase or initial iteration. This phase usually covers project planning and preparational research. In some cases, it also includes initial research, ideation, or prototyping. Sometimes it is also done by providing a very quick first iteration to include all these activities for better project planning (Stickdorn et al. 2018). The main methods and tools applied at the first phase of service design process are: interviews and service blueprints, workshops, and an ecosystem map. These techniques allow actors to bring different representatives together and to map out the current service delivery situation (Bradshaw, 2019).

Discovery or research phase is the next phase of the service design process. This phase normally includes holistic iteration with focus on research. It also may feature some ideation and basic prototyping (Stickdorn et al. 2018). During this phase, for better understanding of people involved in the service process as clients and service providers who interface with clients, it is practical to exploit the methods such as experience map or journey map, experience principles, or personas. (Bradshaw, 2019)

The next phase of a service design process is a concept developing an ideation phase. This phase can be focused on ideation. Besides, the concept developing phase might include some research and lightweight prototyping (Stickdorn et al. 2018). One of the functional techniques during ideation phase, aimed at generating as many different ideas as possible, is brainstorming. Brainstorming is a good tool for facilitating innovative thinking of the team involved. (Bradshaw, 2019)

Prototyping is a next phase of a service design process. This phase is also called a build or incubation phase. During this phase focus should be shifted on prototyping, but it also can include some research and ideation activities (Stickdorn et al. 2018). During the prototyping phase, several different methods can work: prototyping, storyboarding, setting up a booth, and role play. (Bradshaw, 2019)

Next phase is a user engagement phase, which is also called internal alpha, local beta, or rollout phase. Focus during this phase is on user engagement and user learning curves. (Stickdorn et al. 2018) Service design process may additionally include delivery phase and in-production phase. Delivery phase focuses on implementation. The in-production phase allows continuous improvement iterations for standard daily activities. (Stickdorn et al. 2018)

2.2.2 Methods of service design

One of the main service design methods is creation of a stakeholder map. Stakeholder maps help visualize all stakeholders involved in the experience. It provides knowledge about most important participants of experience including people and organizations. Stakeholders are represented by customers,

companies' employees, partner organizations as well as other participants who may have direct or indirect impact on the experience. Stakeholder map helps find potential unseen business opportunities by analyzing existing connections between participants (Stickdorn et al. 2018).

Personas are fictional descriptions of characters of someone who may use the service. Personas help designers understand the wants and needs of end-users by stepping into their shoes. Personas are developed from data that can be gathered through different research methods, such as surveys, shadowing, or stakeholder maps. The more realistic the persona is the more it can give to designers and support the design work. (Stickdorn and Schneider, 2011)

BBH Stockholm, design agency, which focused on designing systems of services and digital products in a book called *"The Service Design Handbook"*, describes persona as "a fictitious character that takes the role of the user to help solve design questions" (BBH Stockholm, 2018).

The next method of service design is shadowing. Shadowing is not only a service design method; it is also often used for marketing research. (Pleshchivtseva, 2008) This method helps to understand how people interact with the surrounding world by including services. Shadowing also helps to collect data about user needs, as well as facilitates understanding different parts of service, including interactions and touchpoints (UK Design Council). The main idea behind this method is to use people prepared in advance, who during the shadowing process will collect user experience information about the quality of a service (Pleshchivtseva, 2008).

Service blueprint is a key tool of service design (Quicksey, 2018). It helps specify details of each aspect of the service. It helps to visualize the service process from both point of views: the point of view of the user of the service and service provider's perspective. Service blueprint includes touchpoints between user and service provider. It also presents visible frontstage and invisible back-stage activities which occur during service providing process, hence service blueprint allows to observe the service providing process in a holistic way. (Stickdorn and Schneider, 2011) In other words, the service blueprint is a visual representation of the complete service process. (UK Design Council, n.d.)

Customer journey maps help visualize service user experience in a structured way. To construct the journey map the touchpoints are used, which are filled with story details of the user experience and its emotional experiences. Because the customer journey map is constructed from the user perspective, it provides a detailed overview of the factors influencing user experience. (Stickdorn and Schneider, 2011)

Customer lifecycle map is regarded as another method of service design. Lifecycle map helps visualize relationships between users of the service and service provider in a holistic way. Such map commonly includes several customer journeys over time and highlights points where users may abandon a service. In other words, lifecycle maps help service providers to develop more effective marketing strategy by marketing new, more desirable services (Stickdorn et al. 2018).

Expectation maps are generally used during service design research. They are created on a basis of the customer journey map by visualizing the customer emotions and desires during its journey. Expectation maps represent dynamically changing user expectations to the service by presenting the best experience the user can imagine. Such maps catch expectations of the users in four ways: see, hear, say, and do, as well as think and feel. Expectation maps are used as diagnostic tools for underlining areas of service which need attention. (Quicksey, 2018)

Cultural probe is one of the service design methods that helps gather information about the user environments. This method should be carried out with minimal interference to activities of the user, so the user can themself report about their activities in day-to-day life. Conducting research with the use of this method usually takes a long time and such kind of technique allows designers to understand expectations, feelings, and dreams of users, i.e. dive into their world. Reports can take a form of a collage, notes, and pictures, which transmit the impression of lived experiences. This kind of method is especially serviceable if the user is physically removed from the researcher (Vianna et al. 2012).

One more tool of service design is a conceptual map. Conceptual map is a way of visualizing and organizing complex data in a simple form. It helps understand connections between different data items and especially practical for analyses of associations and links between those. The main purpose of a conceptual map is to help to structure data fast and in a more holistic way. In addition, conceptual maps can be used as a base for ideation stage (Vianna et al. 2012).

The method of idea menu helps keep and display all ideas generated in the course of the project. This tool allows us to visualize many ideas and optimizes the decision-making process. All ideas generated for the project should be presented in a form of restaurant menu, or a deck of cards (Vianna et al. 2012).

Volumetric model is a method which allows to create a 3-D model of the product to receive customer feedback and make some improvements. In other words, this technique enables creation of a tangible idea. Volumetric models are utilized on different levels of precision in detail, so it either takes the form of a product with few details or looks like a final product. Normally, volumetric models are made from simple material or from few materials and even include textures and colors of the final product. This method is applicable in finalization of concepts through user feedback. Volumetric models also help push projects within organization and speed up a production process (Vianna et al. 2012).

For example, in the case of "Analog iPad" (Vianna et al. 2012) researchers created an analog iPad (Picture 1) – a small whiteboard with pen, which was used to improve a culture of innovation within bank staff. "The analog iPads had a support tripod and a hook so that they could be attached to tables or office partitions, and a handle so that they could be carried to meetings away from the desk." (Vianna et al. 2012). As the test has shown, involving the volumetric model helped to realize the need of a tool for collaboration, the analog iPad helped staff members to act more relaxed. (Vianna et al. 2012.)

There are several methods of service design. Some of them are used at different phases of the service design process. For example, in the discovery phase to identify needs of users, for understanding of the real situation or for gathering ideas for development. Practice knows different examples: user journey map, service safari or user shadowing. On the other hand, during defining phase some other methods like user personas, brainstorming or design briefs prove to be more useful (UK Design Council, n.d.).

2.3 Interior design

The first credited and well-known interior decorator was Elsie De Wolfe. She was born in New York in 1865. Elsie was an actress and a social figure before she started to offer the interior decoration services to her friends (Paranick, 2018).



Picture 1. Analog iPad (Vianna et al. 2012).

In her memories Elsie De Wolfe wrote: "I was an ugly child and I lived in an ugly age". "From the moment I was conscious of ugliness and its relation to myself and my surroundings, my one preoccupation was to find my way out of it. In my escape, I came to the meaning of beauty." (Webster, 2001). Elsie De Wolfe made a big impact on society with her ideas of style, practicality, and the art of living.

In her memories she pointed out the way people experience their own living spaces and said: "I opened the doors and windows of America and let the air and sunshine in". She brought understanding of the comfortability and joy to the living spaces of that age. (Webster, 2001).

The world leading online dictionary, Dictionary.com, provides following definition of interior design as "the design and coordination of the decorative elements of the interior of a house, apartment, office, or other structural space, including color schemes, fittings, furnishings, and sometimes architectural features" (Dictionary, n.d.). Cambridge dictionary describes interior design as "the art of planning the decoration of the inside of a building such as a house or office" (Cambridge Dictionary, n.d.).

Simon Dodsworth in his book "The Fundamentals of Interior Design" (2009) provides a more detailed definition of interior design: "...interior design is about taking a holistic view of the way that individuals use and enjoy the spaces that they inhabit. It is about finding and creating a cohesive answer to a set of problems and dressing the solution to unify and strengthen our experience of the space" (Dodsworth, 2009). Interior design can add a new dimension to the space and increase daily live efficiency of people. It can add a meaning to the space and make the space easier to understand (Dodsworth, 2009).

interior design is about taking a holistic view of the way that individuals use and enjoy the spaces that they inhabit.

2.3.1 Interior design process

Interior design process is several individual tasks with a start and end points, where types of activities highly depend on the project and designer. As a result, design process takes unique shape to serve the unique nature of each project. Design process does not have a standard solution and in one way or another is relevant to all fields of design. Design process should be easily adjusted and revised as appropriate to respond to the needs of the project (Dodsworth, 2009). During the design process it is important to remain open-minded and be inspired by the process, as well as "avoid making final decisions about the design" (Tamqaz, 2018).

Interior design process according to Dodsworth (2009) usually includes the following stages: analyses, development, implementation, and evaluation. Figure 4 demonstrates an example of all stages of the interior design process. Each stage of design process may contain certain substages. For example, an analyses stage can include preliminary brief, feasibility analysis, client approval and other substages.

Dodsworth (2009) suggests two stages of analysis. The first stage of analyses can be relevant at the very beginning of the project for primary evaluation of the latter to calculate needed resources and make proposals for a client. The

second stage of analyses should be conducted after the client has accepted a main design idea and it is time for in-depth development of the design suggestions. Another point, this phase should be held to distil and organize gathered information. All gathered information should include both practical and ethical aspects of the project. The main result of both stages of analyses should be the creation of project concept. (Dodsworth, 2009.)

Stage of development in Figure 4 is the most creative stage of the interior design process. During this stage gathered information about needs of client has to be transformed into a design solution, which should communicate client needs on a functional and emotional level. Main priority of the developing stage is space planning. Based on ergonomic requirements an effective furniture layout should be created to meet the functional needs of the user. Furniture finishing and fabrics should be carefully chosen to correspond to their aesthetic and practical function and fit the design concept. (Dodsworth, 2009) Time spent on this stage of the design process depends on client's expectations. If client expects to see a fully resolved interior design solution including space planning, decorative details and other drawings, the amount of required time and effort will be much higher in comparison to providing only concept drawings of the project. (Dodsworth, 2009.)

All results of the development stage should be presented to the client before proceeding with the implementation stage. After client's approval of the work more drawings should be made, with all details specified. Development stage of design work also includes creation of more detailed cost calculations and developing of final schedules and specifications. Each final document and drawing are due to be approved by the client to be able to move to the next stage of the design process (Dodsworth, 2009).

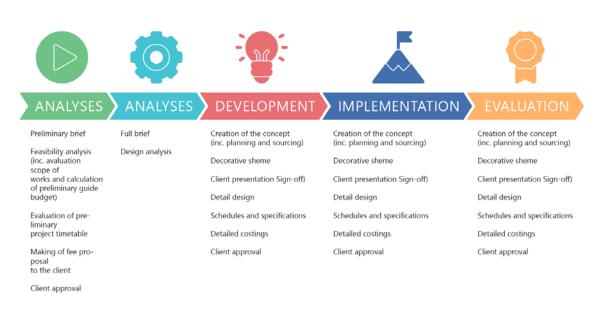


Figure 4. Interior design process (Dodsworth 2009).

The next stage of the interior design process is an implementation stage. Implementation starts after the project is agreed in all its details and the project has been signed off by the client. There are two different forms of designer involvement in the implementation stage: minimal supervisory and hands-on supervisory. In case of minimal supervision contractors must be engaged to carry out whole work so designers can only pay some visits to the site, while hands-on supervisory designer must be more engaged into the implementation process. (Dodsworth, 2009).

Evaluation is the final stage of the design process. This stage is mostly relevant for a designer only, because for a client the final phase of the project is implementation. It is healthy for a designer to review completed projects with a self-critical attitude to learn from the experience received during the project process (Dodsworth, 2009).

2.3.2 Methods of interior design

The first method of an interior design process involves the creation of a client profile. Client profile is a tool which helps to understand who the client is and how the client lives or works. For example, in residential projects understanding of daily routine can be a key aspect of creating the design which will work for the client. On the other hand, in commercial projects understanding of working processes and the way the space is organized can play a vital role in the formulation of the design. Furthermore, in some cases client profiles for commercial spaces can even provide a meaning not just for understanding of existing ways of utilizing the space but also for formulation of a new and better way of working (Dodsworth, 2009.)

Briefing is another method of interior design, applied at the beginning of the design process. Briefs, particularly, contain detailed descriptions of the project, including expectations, problems and needs of the client. Brief, on the one hand, helps clients to formalize their own ideas of design, on the other hand, it helps designers to understand the scope of the project and as a result to create an effective design solution. Besides, brief may include some information about available budget and specification of preferable styles. (Dodsworth, 2009.)

The next method is design analysis. Design analysis helps to explore aesthetic and practical sides of collected information. The goal of the design analyses is to extract as much helpful information as possible from the design brief. For effective design analysis different types of techniques are applicable. The most common of these techniques are brainstorming and mind mapping. (Dodsworth, 2009.)

Building and site research is the next method of the interior design process,

that explores existing buildings to understand their structural characteristics. It helps decide what kind of changes need to be made to meet the functions of the space of the building. There are the following crucial points that should be studied about the building: the existing type of structure; the type of functions and activities that will take place (what special furniture is required); what is possible and what is not possible in the space (limitations, time, budget); what is the spatial function and how it interacts with other participants; what kind of emotional respond the space should offer and what kind of style is specified. These aspects are of the utmost importance for the project because they directly influence the final design. (Dodsworth, 2009) The techniques for building and site research are observation, questionnaire, recording. Furthermore, photography can be used as a tool for effective site research. (Tamgaz, 2018.)

The succeeding method of interior design process is creation of research concepts. Design concepts are known to take many forms – varying from a story or a photo to a collage of images. Anything that offers a full explanation of the whole idea of the project may become a design concept. Among other things, concept helps stay focused, explicating the way space will look like, how it would feel and what kind of the story there is behind the whole idea. The final stage of the concept creation is a development of the mood board or concept sketch. (Dodsworth, 2009)

In another book – "The Interior Design Course" – the author uses the creation of the concept board method as a part of the idea developing phase. Creating a concept board includes brainstorming of associated words, visualization of these words with images, placing them on the concept board and presenting the concept board to designer's colleagues for feedback. The concept board is used for communication of a general level of the idea as well as to introduce some design ideas. (Tamqaz, 2018)

The case study of this thesis mainly covers the first stages of the design process, these are analyses and development, therefore the thesis will research and compare only methods applied on these stages. Hence the methods such as implementation and evaluation stages will not be covered in this study.

2.4 Confluence of service and interior design

Confluence of service and interior design is a recently emerging topic, which has already been partly researched. In "Learning space service design" (Felix, 2011) article the author focuses on the design process of learning spaces, such as libraries, reading rooms and computer labs. The following places were presented as examples of the successful organization of space: the Weigle Information Commons at the University of Pennsylvania with a technology-rich

environment for students, the Learning Grid at the University of Warwick with innovative and integrated flexible space or the Scholars Commons within Strozier Library at Florida State University with wide variety of available space and services for research. (Felix, 2011.) Pictures 2 and 3 demonstrate upgrades that were done in Strozier Library to meet students' needs. (Galetta, 2016.)





Pictures 2-3. Renovated Strozier Library (Galetta, 2016)

The author of the article states that the experience of students from learning spaces can be enhanced by merging of services and learning spaces. Such kind of change is realizable through exploiting service design in the process of designing learning spaces. A fact of service design involvement for design of learning spaces means that not only space itself will be designed, but also activities and interactions, which occur in this space, would be considered. It should be done to support users of the space during their journey in a holistic way. In other words, service design may improve the user experience of the space by designing the space from the user perspective. (Felix, 2011.)

A good example of a well-implemented combination of service and interior design in the design of commercial spaces are Apple stores. In Apple stores services and spaces are inseparable, so space is not described simply by showing a floor plan. For the full understanding of Apple stores spaces, one also needs a calendar of events and list of services. The design goal was achieved by conceiving the spaces of stores as public spaces, similar to libraries, where users of the space can share "the ownership experience, not just buying experience". By implementing the said approach Apple built customer loyalty where the store space and its services are inseparable (Felix, 2011).

As an example, according to new Apple Retail Store design the retail stores intend to have four different sections inside the store, such as The Avenue, where iPhones are on sale (Picture 4); The Forum, a place for holding seminars (Picture 5); the Genius Grove section for repairing of laptops (Picture 6) and The Boardroom, a space for trainings (Picture 7) (RECHI, 2016).



Picture 4. The Avenue (RECHI, 2016).



Picture 5. The Genius Grove (RECHI, 2016).



Picture 6. The Boardroom (RECHI, 2016).



Picture 7. The Forum (RECHI, 2016).

Fassi and Galluzzo in their article "Experiencing and shaping: The relations between spatial and service design" (2018) underline that the origin of connection between space and service is set from the moment, when space was designed, built, and became occupied, since that moment the relationship between the user and the space starts. Consequently, a physical environment allows interactions between people and enhances a sense of ownership they share, as well as increases the level of engagement of people within the context. It is the reason why design of public and private spaces meets services to create a meaningful social environment. Authors also mention, that when spatial design meets service design then "spaces host relational entities and, vice versa, services take place in physical environments" and thus this combination defines touchable outcome (Fassi & Galluzzo, 2018.)

Another article provides an example of experimentations in the field of service and spatial design. These kinds of experimentations include creation of tailor-made tools and methods to combine efforts of service and spatial design for developing of meta design of the campus at the "Universita degli Studi di Milano". In the course of this project, methods and tools of service design helped researchers to determine a group of rules, principles, and guidelines, that enabled them to shape the layout of the campus (Camocini et al. 2018.)

"The primary goal of the new campus project is to provide the physical infrastructure for cutting-edge scientific innovation and discovery as well as for interactions within and beyond the campus boundaries" (Camocini et al. 2018). The name given to this project was "Science for Citizens" (Pictures 8-9). It was developed by CRA-Carlo Ratti Associati together with Australian 'Lendlease' real estate group. Project included porous communal areas, natural oases, maker spaces and robotically assembled brick facades designed especially for the University of Milan's new Science Campus. (Carlorattiassiciati, 2018.)

design of public and private spaces meets services to create a meaningful social environment.



Picture 8. Science for Citizens in University of Milan (Carlorattiassiciati, 2018)



Picture 9. Science for Citizens in University of Milan (Carlorattiassiciati, 2018)

Another article, named "Future Directions in Interior Design Education" (2014) underlines that interior design during the last few years has changed and evolved from decoration of surfaces to design field which designs for human behavior (Alkhalidi, 2014).

Also, Tu Ngoc and Fassi in their article "Design thinking for interior and spatial design: A case study within Politecnico di Milano" (2018) discuss the value of design thinking in interior and spatial design. They point out the importance of design thinking in interior and spatial design justifying their point of view on the fact that "design thinking approach adopted in interior and spatial design has led to the changing nature of a traditional design studio" (Tu Ngoc and Fassi, 2018).

One more article "Service+Spatial design: Introducing the fundamentals of a trans-disciplinary approach" (2018) attempts to place new foundations for the new approach and study a mutual influence of service and spatial design fields. The authors' research basics of both disciplines is supported by the next key dimensions: environmental dimension, temporal dimension, and social dimension (Fassi et al. 2018).

Environmental dimension of spatial design is "dialectical". In other words, spatial design gives meaning to the space, shapes it and "designs it with the symbolic added components". On the other hand, the environmental dimension of service design is "unfolded". It means that service design establishes service evidence as physical evidence. Furthermore, designed physical evidence with added components shape the experience of service (Fassi et al. 2018).

Another dimension of analyses is temporal dimension. Temporal dimension of spatial design is "abstract", which also can be characterized as the "endless time of the memory". The authors explain that spatial design constructs spaces with "timeless components", because various places consist of time of the experience of people happening within these places. For service design, temporal dimension is "experiential", because of the "limited time of the use". Thereby services can take place if the relationship between service provider and service receiver exists. On top of that, service design considers all service phases happening during service process, including preservice phase, during service and after service phases. Service design "designs relationships with a defined duration". (Fassi et al. 2018.)

The third dimension covered in the article is the social dimension. For spatial design, social dimension is "semiotic". While for service design social dimension can be characterized as "relational". Semiotic social dimension of the spatial design according to the Fassi's article can be explained as "spatial design explores the user experience in space. The figurative act embodies the wicked problems of the contemporary condition and shows the new configurations of a changing society. In fact, places are relational conditions made up of cultural

and ritual relationships". (Fassi et al. 2018.) Contrastingly, service design has a "relational" social dimension, because of the complex and relational nature of service design, where service design works with space where the interactions among service receiver and service provider take place (Fassi et al. 2018).

By providing this analysis Fassi, a PhD and an associate professor of Politecnico di Milano, and other authors try to prove that service design and spatial design are complementary fields of design. Another point worth mentioning is based on proved analyses of dimensions of spatial and service designs, and the authors of the article have created dimensions of the spatial and service design stating that they are: "dialectic", "archetypical" and "phenomenological" (Fassi et al. 2018). In the sense of the study content, the authors of the article both conduct design research and teach design courses based on the studies. As a result, theory and practice complement each other. The authors' academic background allows them to suggest various hypotheses, while at the same time courses allow them to test those hypotheses in practice. The research was developed based on teaching experimentation in real context. The authors use the following research methods in the article as informed opinion and experiences, qualitative compressing and collecting evidence. The most important finding at this stage of work is that "the authors are not looking for an overlapping of the two disciplines" which is one of the initial goals of this thesis, but they go further and look for "the creation of a transdisciplinary approach". (Fassi et al. 2018.)

Design thinking process in spatial design starts to play a significant role and is becoming a changemaker when designers provide users a freedom to create and choose the most attractive ideas for further work. During the last decade interior design has changed "from one primarily concerned with surface decoration to one based on designing for human behavior" (Tu Ngoc, Fassi, 2018). This change has placed a new challenge for interior designers, who now should be involved in the lives of people they are designing for to observe real experiences of users (Tu Ngoc, Fassi, 2018).

Combination of spatial and service design is a combination where both fields exist hand in hand, can benefit from each other and be a prerequisite for development of a transdisciplinary approach and, as a result, developing of new mixed-tools or toolboxes, which will consist of both interior design and service design tools (Fassi, Galluzzo, De Rose, 2018). This kind of multidisciplinary design approaches can be applied on projects for public service spaces, such as elderly communities and hospitals, libraries, school buildings and others. As a result, space gains a new meaning, it becomes one of the service's touch points which should meet the needs of all users (Van Geetsom 2018).

3 PROCESS

The process portfolio of this thesis's is based on Artenio Oy case study. Artenio is a company that has been operating for four years in the Helsinki region and providing various types of services from tailor-made clothes to PDF-patterns sold online. A goal of the case study is to generate interior design concepts of the commercial space from the end-user perspective.

3.1 Interview

The first interview with the owner of Artenio was held in an atelier at the beginning of the research in April 2019. The goals of the first interview were to understand the business model of the company, to gather information about its customers, the revenue structure, the main shareholders and competitors of the company. In addition, the interview contained a discussion on the kind of services and products Artenio company provides and what kind of equipment should be present within the store to support service / products providing processes. Furthermore, during the first interview the owner's ideas about the interior style of Artenio were discussed, as well as preferable color palette and possible budget for interior design project.

For the first interview, a semi-structured type of interview was applied. Hence some questions were prepared in advance, at the same time, the interview was flexible enough so that the owner could explain all details in her own words.

All discussions were recorded to prevent the loss of information. Based on data collected in the first interview the drafts of personas, a draft of stakeholder map and a business model canvas were created.

The second interview with the owner of Artenio was conducted during research process in September 2019 to deepen the information gathered during the first interview and collected by another methods. At the same time intermediate results were summarized, missing details were clarified, and a service-providing process picture became clear. As a result of the second interview, the personas, the stakeholder map, the business model canvas were finalized. The second interview also provided the sufficient information for creation of the blueprint and mood board for the Artenio company. What is more, during the second interview a list of professional furniture was specified, which had to be presented to Artenio. The discussed furniture will be presented later in a design board for Artenio in Chapter 3.12.

Besides, to explore both interior design perspective on service design and design thinking perspective on interior design, experts in both fields were interviewed. As an expert form interior design field, Salla Kantokorpi was chosen, an architect who oversaw interior design / architectural projects for public spaces in Helsinki, such as Restaurant Nude, Alice Italian, The Finnish National Opera and Ballet, Tallink m/s Victoria, Yle Luova talo and others (Kantokorpi, 10.9.2020). The examples of Salla Kantokorpi's projects are presented in Pictures 10-11. Picture 10 illustrates a project, called "Heltti". "It is an award winning, innovative and modern occupational health care company. Instead of the typical hospital look, the goal was to create a space that is relaxed and casual. The concept was based on customer insight and service design methods." (Kantokorpi, n.y.)



Picture 10. Heltti. Picture by Arsi Ikäheimonen. (Kantokorpi, n.y.)



Picture 11. Luova talo. Picture by Arsi Ikäheimonen. (Kantokorpi, n.y.)

The second example is a project named "Luova talo". "Luova talo building was renovated entirely from its 80s looks to meet today's modern standards. All 6 floors have different identities to be appealing and inviting for employees and guests." (Kantokorpi, n.y.)

As an expert representing the design thinking approach Roman Lihhavtsuk was chosen, who is known as the UX lead designer with the Finnish cyber security company F-Secure, featuring experience in various fields of design, including UX, service design and graphic design. Roman Lihhavtsuk has also graduated from Aalto University Creative Sustainability Master's program.

Unfortunately, the meeting with the interior designer Salla Kantokorpi was impossible due to her busy schedule, so, instead of a live interview the prepared interview questions were sent to her by email and she replied to them in an open written way. The goal of questioning Salla Kantokorpi was to understand what kind of knowledge she as an interior architect has about service design, how service design can be used for interior design and what kind of experience she has in applying such a multidisciplinary approach in real life cases.

Based on Salla Kantokorpi's responses it became clear that service design could be used during interior design projects to meet expectations of clients regarding atmosphere of the space and its functionality. Kantokorpi also underlined a need to invite a service designer to participate in challenging projects. Several service design methods could be implemented in an interior design project and knowledge gathered with those methods could become "the main driver in design". Normally, service design methods are used in more complex projects, where end-users should be involved on ideation, prototyping and design evaluation stages. According to Salla Kantokorpi, she has been familiar with service design in a theoretical and practical way for more than 10 year since her close

cooperation with Hellon Oy, a service design company in Helsinki (Kantokorpi, September 2019).

The interview with Roman Lihhvatsuk was held in a written form on 19th of July 2020. Lihhavtsuk sees a deep connection between service design and interior design. According to Roman, "service design provides UX designers with a research-based understanding of the users of products or services that designers currently work on. It is imperative for UX designers to understand who the users are, how they think and behave, as well as the context and physical environment where the experience is happening." According to Roman, both UX and service design would benefit from interior design methods and tools. This is especially relevant to the projects that are happening in the physical environment. In other words, interior design tools and methods can be used for prototyping and testing of services and products. Roman also mentioned that from the point of view of design thinking the interior design could help increase empathy by creating physical prototypes and thus improve the spaces (Lihhavtsuk, July 2020).

Both experts share the idea that either field is beneficial for each other and might be used in several cases as a complex design approach by combining methods and tools belonging to the two fields. Full texts of both interviews are presented in Appendix 1.

service design could be used during interior design projects to meet expectations of clients regarding atmosphere of the space and its functionality

3.2 Benchmarking

Benchmarking in this study was used for collecting information about competitors and to compare the results with each other. Based on gathered information, the improvement ideas for Artenio's facilities were listed.

Six companies were selected for benchmarking. The list of the companies includes: Materials – atelier and store, Suomalainen Nappitalo-Finska Knapphuset Oy – sewing accessories store, Villisilkki Oy – fabrics store, and Eurokangas Oy – chain fabrics and sewing store. These companies locate in Helsinki region and, according to interview with the Artenio owner, these companies are considered to be competitors (personal communication, March 2019). Furthermore, according to Google review (Google Support, n.d.), they are the best service providers in the field of tailor-made clothes and sellers of sewing accessories. Some of them are companies with the same portfolio of services as Artenio, so they have both ateliers and stores, and some just sell accessories for sewing or fabrics.

3.2.1 'Materials' Atelier Store

'Materials' is an atelier and fabrics store located in the center of Helsinki, which provides services of different kinds of alterations and sells different fabrics, such as unique high-quality fabrics for women's clothing, including wool, linen, cotton, and mixed fabrics, as well as threads and buttons. In addition, cleaning service is available. Patterns are available at the physical shop. In addition, some patterns can be ordered from patterns' webstore Butterick, which will be delivered to the 'Materials' store within 3-4 days, so that the personnel of the 'Materials' store will arrange for a home delivery later (Materials, n.d.).

The company was established in 1993 by Saija Puska (Finder a, 2020), the owner of the company. For the entire year, except for summer, the store is open from Monday till Friday 10-18 and on Saturday 10-15 (Materials, n.d.). During the visit, there were two employees in the store, one of them was taking care of customers, another one was sewing. Unfortunately, there is no available financial information about the company because the company legal status is an individual entrepreneur (Finder a, 2020).

The shop itself has a wide variety of fabrics (placed on wooden shelves), two fitting rooms, the welcoming and cozy space, enough light, and the friendly personnel. The shop window is decorated professionally in a way allowing passers-by to understand what kind of products and services the company provides. The door has a doorbell and there is place to read magazines and discuss orders (Picture 12). The atmosphere in the store is relaxing and cozy because the stuff was well arranged, and the vintage furniture added to the atmosphere. All fabrics rolls are marked with price tags. On top of that, the dressing room has good lighting, a chair, a mirror, napkins, and an information board with prices.



Picture 12. 'Materials' store (Materials, n.d.).

3.2.2 Suomalainen Nappitalo-Finska Knapphuset Oy

Suomalainen Nappitalo-Finska Knapphuset Oy is a sewing accessories store in the center of Helsinki. The store was established in 1991 (Suomalainen Nappitalo-Finska Knapphuset, n.d.). A visit to the store was paid on Saturday (6.5.2019), and one person had been working there at that moment. According to the financial data by the time of the research 'Nappitalo' employs three people (Suomalainen Nappitalo-Finska Knapphuset, n.d.), and the turnover of the company has grown during the last four years (Finder b, 2020). The selection of goods is wide. Buttons, tapes, zippers, sewing threads and other sewing accessories can be found at Suomalainen Nappitalo-Finska Knapphuset Oy.



Picture 13. Suomalainen Nappitalo-Finska Knapphuset Oy (Nappitalo-Finska Knapphuset, n.d).

The accessories are displayed according to the colors and types, the shop is full of shelves with products, the space is well organized and there is an informational plate on each shelf. Some products are grouped according to the color. The space itself is worn out and the floor seems old, but it probably does not impact sales, because the physical space is used just for product layouts (Picture 13). The shop window is properly decorated.

3.2.3 Villisilkki Oy

'Villisilkki' is a Helsinki based fabric store, which was established in 1989 (Kauppalehti a, 2020). 'Villisilkki' sells different kinds of fabrics – from casual fabrics for sewing of wedding dresses and ending with wool. According to the available financial data 'Villisilkki' failed to gain profit during 2018 (Kauppalehti, 2020). The store was visited on Saturday and on the said day there was one employee.

The store windows are luxuriously and stylishly decorated, thus evoking a feeling over a distance, so customers have time to think twice before deciding to enter the store. The trade space is quite large, probably twice larger than at 'Artenio'. Fabrics in the store are well organized, according to the color (Pictures 14-15). The atmosphere is welcoming because the space is full of light and organized according to its purpose, the personnel are friendly.



Pictures 14-15. Villisilkki Oy store (Villisilkki, n.d.).

3.2.4 Eurokangas

'Eurokangas' is a well-known fabric store in Finland, which was established in 1945 in Lahti and later, in 1991, it got the name 'Eurokangas'. Today it is a big chain of shops around Finland which includes about 30 stores and employs around 400 people. The company is a leader in sale and import of fabrics, it also provides the services like interior design, measurement, sewing and installation service for home and enterprises (Eurokangas, n.d.). The annual turnover in 2019 of 'Eurokangas' was approximately 35 million euro (Kauppalehti b, 2020).

This store, located in the center of Helsinki city, was visited during the research. The store itself is large and visible from afar. In the store there was a wide selection of fabrics, arranged according to their color and sewing accessories, as well as several tables for cutting fabrics, curtain point, tables with magazines, some points of inspiration and several fitting rooms. There are two types of the furniture inside the store: one is the fixed professional furniture, and the other type is presented by the movable pop-up stands and shelves. The store was well-lit and looked nice and welcoming with mannequins demonstrating the latest fabric trends.

3.3 Artenio Oy

The owner of the atelier is a professional dressmaker who specializes in women's apparel. She was born in Saint-Petersburg and moved to Finland in 2009. She had been working in Saint-Petersburg as a dressmaker in a large atelier for many years, therefore the idea of continuing to work in the same field after moving to Finland seemed logical. As a result, she decided to start her own business of making and repairing clothes. First, she worked at home on the first floor of the family house, but as time passed, the demand was growing and challenges to personal time became more obvious, the opening of a separate atelier-shop was a rational solution. Consequently, the Artenio atelier-store was opened in 2017. The process of changing the working environment was difficult because it caused a complete change of customer segment (Personal communication, March 2019). Despite all challenges, due to professionalism, the high-quality tailoring services and the high-quality goods, Artenio today is a successful and profitable company. Some photos of the Artenio atelier-store before the research are presented in Pictures 16-19. The current customers of the company are people living or working in Etu-Töölö, where the atelier is located, as well as from other nearby Helsinki districts and online customers. The atelier's main services concentrate on tailor-made clothes, on repairing and altering of clothes. These services contribute to approximately 60% of the company's income. To date, one person works in the atelier – the owner of Artenio. Furthermore, during the research period one trainee had a work placement in Artenio.

The Artenio owner purchases fabrics and accessories for sewing, monitors the state of sewing machines, takes, and sews orders, makes PDF patterns, sells PDF patterns and fabrics via the online store, sells accessories and fabrics to physical stores, and maintains all social media channels. The owner of the company is supported by the family members – her husband takes care of financial matters, occasionally she involves other family members as models for photo shooting of samples of clothes to promote PDF patterns. The working schedule of the Artenio atelier is 10-18 from Monday to Friday (Personal communication, March 2019).



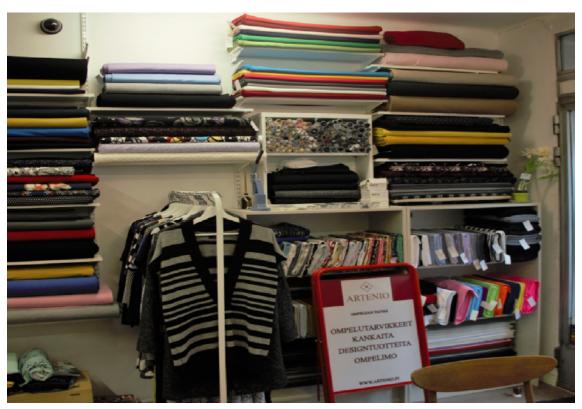
Picture 16. Artenio Oy situation at the beginning of the research.



Picture 17. Artenio Oy situation at the beginning of the research.



Picture 18. Artenio Oy situation at the beginning of the research.



Picture 19. Artenio Oy situation at the beginning of the research.

Etu-Töölö district

Etu-Töölö is one of Helsinki central districts built in the 20s-30s of the 20th century, "the neighborhood is known for big apartment blocks with closed-off yards, local shops, and a calm atmosphere, beauty and sensitivity are what exude from the architecture of this neighborhood" (MyHelsinki, n.d.). This area became a residential area for well-off middle-class people. According to the unified building plan all houses in this area should have the same height and same roof shapes. The area presents a mixture of architectural styles, such as classicism, functionalism, art nouveau and modernism. Most popular public buildings in the district are the Parliament House, the National Museum, Finlandia Hall, Temppeliaukio Church and others. Etu-Töölö is an important area from the historical and cultural points of view. (MyHelsinki, n.d.)

The demographic composition of the area of Etu-Töölö is divided as follows: 82% of Finns, 12% of Swedish and 6% speakers of other languages (Jukkajoutsi, 2020). Picture 34. shows Etu-Töölö in 1943. In Pictures 20-23 the area is depicted as it looks now.



Picture 20. Etu-Töölö in 1943 (Helsinkikuvia, 1943).



Picture 21. Etu-Töölö district today.



Picture 22. Etu-Töölö district today.



Picture 23. Etu-Töölö district today.

3.4 Stakeholder map

Stakeholder map visualizes and identifies powerful influencers in a project and provides initial shape for it. Stakeholder analysis builds understanding of the involved parties, where stakeholders are either individuals or organizations. A deeper stakeholder analysis could also include power and interest mapping. (MindTools, 2018). Stakeholder map helps service providers "to deploy their resources more effectively when responding to the problems and expanding their services" (Stickdorn, Schneider, 2011).

The stakeholder map was used during the case study as it provided a clear and simple understanding of all stakeholders involved and helped to analyze mutual impacts on each other. Stakeholder maps make it easy to see a big picture, where a company is just a part of the whole structure and is tightly connected to the rest of stakeholders.

The stakeholder map of Artenio includes the internal, the external, and the connected stakeholders. The map is presented in Figure 5. The internal stakeholders are the company itself and the owner's family because the owner receives the financial support from her husband, moreover, the existence of the family impacts the working hours of the company. The external stakeholders are the tax office, press/media, government, Helsinki region and society. Finally, the connected stakeholders are suppliers of fabrics and accessories from different countries, customers of the company, the landlord of the premises and Etu-Töölö district, where Artenio operates.

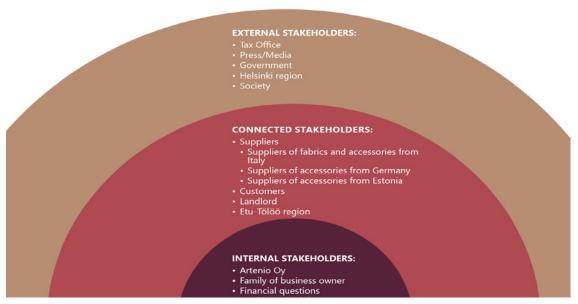


Figure 5. Stakeholder map of Artenio Oy.

3.5 Business model canvas

Business Model Canvas helps to "capture, visualize, understand and communicate the business logic" (Ojasalo & Ojasalo, 2018). In other words, a business model canvas is a framework, which helps to analyze in one-page template the key blocks of the business model, such as: key resources, key activities, key partnerships. Secondly, it includes parameters associated with the company's clients and its value: customer segments, channels, and customer relationships. Thirdly, it covers financial parameters of the business, such as cost structure and revenue (Ojasalo & Ojasalo, 2018). Business model canvas can help to understand "a business model story" where all blocks reinforce each other. It also helps to analyze "the influence of various options on the employee and customer experience, as well as on the business impact" (Stickdorn et al. 2018).

The Business Model Canvas was used during this case study to develop an understanding of a business model of Artenio company in a well-structured way. It also supported the tracking of connections between all components inside the business model. The results are presented in Figure 6. The Business Model Canvas of Artenio company provides a full understanding about the company values, its key partners and main activities, as well as demonstrates a revenue structure.

The value propositions for Artenio serve the customers with the aim of making their clothes fit, repairing clothes, providing a good collection of high-quality fabrics and accessories for sewing, offering patterns for customers to create their individual clothes.

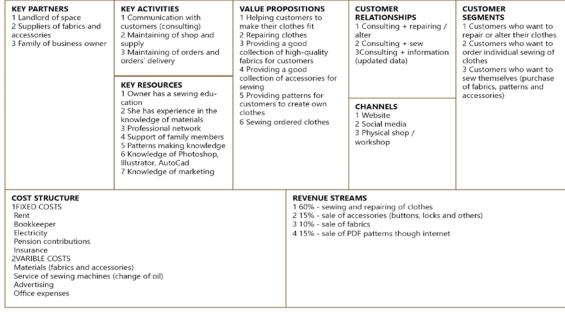


Figure 6. Business Model Canvas of Artenio company.

3.6 Personas

Personas are fictional descriptions of characters who may use the service. Personas help designers to understand the wants and needs of end-users by stepping into their shoes. Personas are developed from data that can be gathered through different research methods, such as surveys, shadowing, or stakeholder maps. The more realistic the persona is the more it can give to designers and support the design work. (Stickdorn and Schneider, 2011.)

Since the main goal was to improve functionality of the space and its layout through the end-user perspective, the end-user research became crucial. An analysis of the end-user perspective assists in creating a unique experience for current and potential customers of Artenio and in differentiating the company from other similar service providers.

Based on gathered information, four different personas for Artenio were created. They all represent different ages, gender, different financial statuses, and different needs, so that as many different perspectives as possible would be considered. For example, Persona No.1 in Figure 7 is a 63-year-old retired and financially secured woman, focused on tailormade clothes.



Figure 7. Persona No. 1

Persona No.2 in Figure 8 is a 19-year-old woman, who needs to make a dress bought online fit for school graduation. Persona No.3 in Figure 9 is a 43-year-old man who shares the idea of sustainable lifestyle and is concerned about clothes repair. Persona No.4 in Figure 10 is a 32-year-old mother of a toddler,

who is price-conscious, who sews at home and is interested in PDF-patterns as well as accessories and fabrics. Thus, a complete design solution will be provided taking into consideration the needs and interests of all categories of Artenio's customers.



Figure 8. Persona No. 2

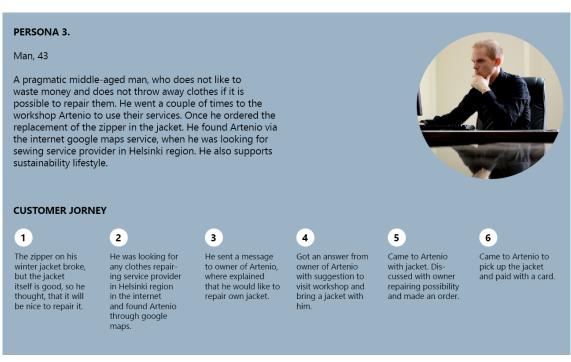


Figure 9. Persona No. 3

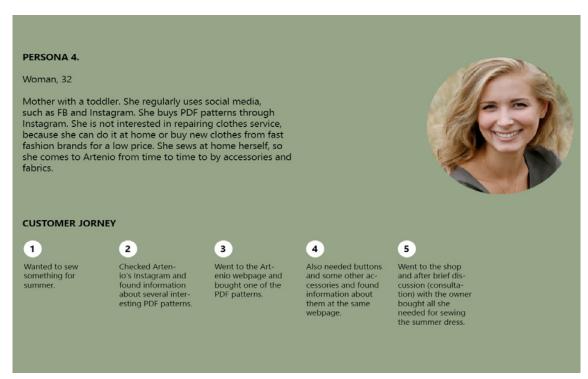


Figure 10. Persona No. 4

3.7 Customer journey

Customer journey is a visual tool, which aims at visualizing the story of the customer, and understanding how company services work. It also seeks a way to see the service process from the user experience perspective, discover gaps and pain points in customer experience and find potential solutions (Stickdorn et al. 2018). Customer journeys were used for stepping into customer shoes and getting an end-customers' perspective on the service process. In case of Artenio four customer journey maps were prepared – one for each persona. The customer journeys are combined with the Personas above and presented together with them in Figures 7-10.

3.8 Mystery shopping

"Mystery shopping research is definitely recommended for various businesses. It can bring managers at all levels and front-line employees in touch with customer needs and perspectives" (Manolica and Roman, 2012). Mystery shopping is a way to measure the quality of the service. It is done by involving trained persons to observe the service providing process and find what should be improved from the customer point of view (Hesselink and Wiele, n.d.).

The most important stages during carrying out mystery shopping are: "design of the process (goal, frequency and feedback), data gathering, mystery shoppers, and reporting" (Hesselink and Wiele, n.d.). The stage of the process design starts from identification of the goals of mystery shopping. Besides, on this stage a checklist for mystery shoppers is created. The checklist can be created "by going through the process of the service delivery and paying attention to failure points" (Hesselink and Wiele, n.d.).

The data gathering stage should be linked to the specific situation. Mystery shoppers should be critical and independent, as well as trained before the beginning of the mystery shopping. On the last stage of the mystery shopping process all feedback should be reported as soon as possible (Hesselink and Wiele, n.d.).

In case of Artenio the goal of mystery shopping was to give a general evaluation for the service process of the company by providing grades from 1 to 5. In addition, to provide open feedback about space organization from the customer point of view. For mystery shopping in Artenio three different persons were selected, matching Artenio personas profiles. Each person has their own

Questionnaire Mystery Shopper

(fill in within 15-20 minutes after visiting the store)

- 1. Was it easy to find the shop? Yes. No, why? "Yes, because of the stand on the street."
- 2. Describe in a few words your first impression from the store. "Bright, pleasant place. The warm hostess."
- 3. Rate the layout of goods in the store on a scale of 1 to 5. "3"
- 4. Was it easy to find the product you were interested in without the help of the seller? Yes. No, why? Specify the specific product you were looking for. "I was able to find the product without help, but it took some time (zipper for the skirt). All products were hung out equally without designations what was where, so it was difficult to understand at first."
- 5. Rate the work of the seller on a scale from 1 to 5. "5"
- 6. Did the seller offer help? Yes. Not. "Yes"
- 7. Rate the quality of service on a scale from 1 to 5. "5"
- 8. Rate the overall situation and the interior of the shop-studio on a scale of 1 to 5. "3"
- 9. Write an open review about visiting the shop-studio, indicate what you liked, what you did not like. If in your opinion this shop-atelier needs improvements / changes, elaborate:
- "I didn't really like the shop window, if I was just passing by, then most likely I wouldn't have a desire to go inside. I would like to see a single style in the studio, which would reflect the image of this place: a hospitable hostess, good beautiful fabrics, high-quality work. I advise you to remove or more accurately change or put in order a dummy very much resembles Russian markets, plus it was still unkempt. Warehouse-like storage walls also do not give the store a charm. I liked the layout of the fabrics: they are beautifully arranged in color and texture, I immediately found the fabrics that I liked, because, for example, my favorite gamut was gathered together on the same shelf. Natasha (hostess) has also very beautiful dresses and tops already sewn! I did not see on the stand or in the shop window that she could also sell clothes, and not just sew herself or order, and I think it would attract more buyers. It would also be nice to flip through patterns, for example, sitting in a chair, rather than standing at the cashier's desk."

Figure 11. An example of a mystery shopping checklist.

situation and was briefed before their visit to Artenio. Each person had a checklist that should be filled as soon as the mystery shopping was accomplished. An example of a checklist is presented in Figure 11.

Below are other comments gathered during shadow shopping by other participants:

"I liked that the reception table is in the center of the room and a fact that when ordering they give a piece of paper (order note). The interior itself could, of course, be better, yet such an area ("such" area - that is, a residential area where wealthy, but modest people live, so the interior could be modest, but tasteful and homely"). Add visibility so you can see it better when you pass by. Find out if there is a bell when you open the door."

"In general, it left a good impression, the goods were laid out, so you can touch them. The seller is a genuinely nice and sociable. I would like more information about prices, as the price is not indicated on all the products, but it is not always convenient to ask. The range of accessories could be expanded."

"To get to the fitting room, I had to go behind the cash register (I was a little embarrassed and it was not convenient). The fitting room is basically OK. It is necessary to free one wall at one corner and turn it into a showroom or a corner for customers."

3.9 Observation

Observation (10.9.2019) can help to follow a service process of Artenio and based on its results to create customer journeys, blueprint, and discover customer pain points. Unfortunately, the real situation did not allow the author of the Master's Thesis to conduct a proper observation in Artenio, since the small size of the store and customer privacy posed certain restrictions – the customers would have felt uncomfortable should there had been another person during the process of service providing. Despite this, there was a chance to observe two customers because they came to the atelier during an interview with the owner.

The first customer came to pick up her order and her visit was quite short, so she stepped into Artenio atelier, received her order, checked that everything was made correctly, paid, and left. Another woman, who came to fit her dress seemed to be confused by the researcher's presence and was lost after she entered Artenio, because she did not understand where she could put her bag and where was her place as a customer in that space. Also, in her case a type of a work order was way more personal, so it was obvious that she would prefer to stay with a dressmaker alone. Even though there was no possibility to do observations for the whole day as it was initially planned, those two customer visits

provided a general understanding about pain points in customer experience of the clients and the owner of Artenio herself.

3.10 Service blueprint

Service blueprint is a diagram that visualizes processes to optimize and improve the way business delivers customer experience. Service blueprint is one of the primary tools implemented in service design. Blueprint visualizes the relationships between different service components that are directly tied to touchpoints in a specific customer journey. Service blueprint provides comprehensive understanding of the organization's service and the underlying resources and processes that enable the service. This achieves a wider understanding of the services, which provides strategic benefits for the business. Blueprints help businesses to discover weaknesses and identify opportunities for optimization. Typical key elements of a blueprint are frontstage and backstage actions, processes, and actions of customers. (Gibbons, 2017.)

The Service Blueprint was applied to understand connections between service process and backstage activities of Artenio company. During the research process, the sufficient information was gathered for creation of the service blueprint. Furthermore, the problematic areas were highlighted that needed to be improved or developed. The service blueprint for Artenio is presented in Figure 12.

3.11 Mood board

In most cases a mood board is a collage consisting of pictures, texts, photos, visualizations, or any other types of media, that help to visualize a desired design direction and transfer an experience, style, or context. (Stickdorn et al, 2018).

The mood board for Artenio was designed by selecting pictures from online courses to create a visual impression of updated version of layout and interior design of the atelier, as well as to reflect customer expectations, underline the overall style, that corresponds to the owner of the atelier and the quality of services provided by Artenio. All selected pictures include elements of sewing and create a proper, high-quality impression, underlining personal touch of the owner in producing the unique handmade products.

This mood board demonstrates all services, provided by Artenio and at the same time creates a cozy and personalized atmosphere of Artenio by emphasizing professionalism and experience of the owner of the company. The mood board is presented in Picture 24.

	Service BluePrint													
Phase of action		The need of gaining information				Buying / Ordering				After sale				
Physical evidence	Artenio Oy	Newspapers	Web-site	Instagram	Facebook	Store / atelier / webstore	Tailor made clothes	Repaired/ fitted clothes	Sewing accessories / fabrics in store	PDF- patterns	Tailor made clothes	Repaired/ fitted clothes	Sewing accesso- ries / fabrics in store	PDF- patterns
Customer action	Needs to tailor clothes, repair, buy some accessories for sewing or PDF patterns	Looks for some infor- mation about atelier in local newspapers	Looks for some information about atelier/store with sewing accessories in the internet. Uses Google map for search.	Looks/follows atelier's account on Instagram to receive updated information about new arrivals and PDF patterns	Looks/follows atelier's page on Facebook to receive updated information about new arrivals and PDF patterns	Looks for fabrics, PDF pat- terns or sewing accessories	Calls/visits with an idea and fabric Approves sketch and places an order Signs an order form Intermediate fitting Comes to pick up Pays and gets a receipt	Calls/ sends message/ comes to visit and discusses about needed work (with pictures) Requests for the price Orders and brings, signs an offer form Possible intermediate fitting Comes to pick up Pays and gets a receipt	Looks for something specific for sewing, checks a webpage/social media and comes to the store. Takes time to find accessories / fabric. Finds and buys. Takes a receipt	Follows social media channels of Artenio Oy for new PDF-patters to be published. Follows instructions, goes to the website, pays and down- loads a pattern				
Front stage interaction	Runs the atelier and store and web-store with patterns	Posts an advertise- ment in local news- papers	Updates a web-site with information about latest arrivals and news; business is marked on google map	Updates profile on Instagram, adds stories and posts new patterns information	Automatic synchronization with Instagram	Runs the store and atelier, presents examples of sewed clothes. Takes care about physical visibility of a store. Runs webstore, updates information and prices on webstore	Meets customer in atelier. Discusses details and checks a fabric. Makes a sketch. Discusses the price. Takes an order and writes an order form. Makes measurements and notes. Informs about readiness. Gives on order to the customer. Takes payment	Replies on call/ massage. Meets customer in atelier. Informs about price. Takes an order. Writes an order form. Informs about readi- ness. Gives on order to the customer. Takes payment	Meets in store and offers help. Helps to find what customer needs; sells and gives a receipt	Posts information about new patterns and in- structions for paying and downloading	Asks to leave a feedback in google reviews. Responds to feedback. Basic warranty if something is obviously wrong it will be fixed free of charge	Asks to leave a feedback in google. Responds to feed- back. Basic warranty if something is obvi- ously wrong it will be fixed free of charge	Asks to leave a feed- back in google. Basic warranty for goods	
Back stage interaction	Chooses suppliers and buys/orders fabrics and acces- sories for sewing. Makes PDF-patterns	Searches and selects local newspaper to post an advertisement	Uses WIX platform for running the web-site	Takes photos and writes description texts as well as learning the marketing and branding tips in Instagram from bloggers. Creates PDF patterns	Automatic synchronization with Instagram	Orders, picks up products, makes products placement in the store, sews examples of clothes. Learns about new trends in patterns/fashion magazines. Takes care about sewing machines	Tailors the clothes. Prepares a pricelist based on cost calculations. Takes care of sewing machines and controls availability in store of basic accessories needed for sewing	Makes repairing/ fitting. Prepares a pricelist based on cost calculations. Takes care of sewing machines and has in store basic accessories needed for sewing	Makes sure that all goods are available, if needed, orders more. Updates a webpage or social media. Makes pictures and price calculations. Meets/visits suppliers of fabrics (trips)	Makes a pattern, uploads it to the cloud. Sews an example and presents it in store. Takes picture of it and post it in social media. Writes description text and places a payment and downloading instructions	Tracks feedback	Tracks feedback	Gets a warranty paper from supplier	
Support processes	High quality sup- pliers	Local newspapers with wide circulation	Existing free of charge WIX web-site platform and basic support and updating	Instagram as a social media channel / Existing of followed bloggers	Facebook as a social media channel	Delivery from suppliers. De- livery/publishing of pattern magazines. Costs calcula- tion from the bookkeeper and some financial reports	Delivery of basic accessories for sewing. Costs calculation from the bookkeeper and some financial reports	Delivery of basic accessories for sewing. Costs calculation from the bookkeeper and some financial reports	Delivery of basic accessories and fabrics for sewing. Costs calculation from the bookkeeper and some financial reports	Credit card payment available	Google rating and review	Google rating and review	Existing google rating and review. Products warranty provided by suppliers	

____ - need to be improved

⁻ no need for participation

3.12 Space planning

Space planning is a creation of several alternatives of a plan of the space with furniture and other equipment, that is made with taking into consideration parameters of the space, the customer needs and goals, the use of the space,

the space location criteria, certain types of equipment or standard furniture, the existing layout of space, fixed building elements as well as security and privacy issues, budget, and others. Also, during the space planning phase the following important factors, such as functionality and workflows within the space, may be considered (Tantawy, 2015).

During the first stage of a research process, a measurement of the space of Artenio atelier was carried out. Artenio had tiny premises, approximately 30m², consisting of two rooms. A larger room, approximately 21m² in size, is used for the store and is the focus of the research, while the atelier is in a smaller room,



Picture 24. Mood board for Artenio Oy.

which is approximately 9m² and is not taken into consideration, since it is not used for customer interactions. The layout of the space plan of Artenio's larger room at the beginning of the research is presented in Figure 13.

The space planning process started with putting together an interior design board, which included all types of furniture that needed to be presented within the space for supporting the service providing process. The list of furniture was approved by the owner of the company and the final design board was created (Picture 25). The design board also included existing textures of the floor, walls, and the ceiling, as well as some decorative elements, which would support the transfer of an atmosphere from Artenio's mood board (Picture 24).

Then, three alternative plans of the space were developed. All three of them included wall cuts for better understanding of the space. Even though the space was just 21m^2 , it was important to fit a customer service point within this space, as well as to have 2 big tables needed for patterning. Furthermore, it was important to improve fitting room, keep enough shelves for fabrics and other accessories, keep the stand with threads, create a new stand for other accessories instead of existing massive shelves, create a space for demonstration of the clothes samples made according to the PDF patterns, move a cash box

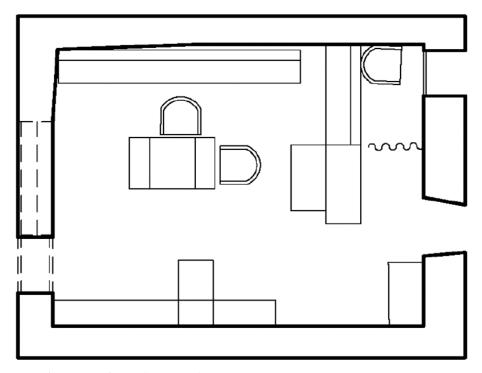
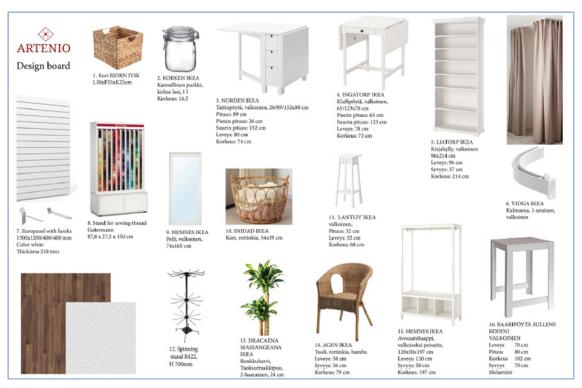


Figure 13. Layout of Artenio (larger room) at the beginning of the research.

to a more suitable location and not to forget about the overall visual style of the interior. Also, in the course of the space planning all information gathered during observation, mystery shopping, benchmarking, personas, and the blueprint was considered.

The first space plan made for Artenio Oy is presented in Figure 14. On the first space plan, the fitting room stays in the same location at the top right corner but becomes twice smaller. Next to it, at the middle of the wall, there is a shelf for samples of clothes and at the bottom right corner – a customer service table. Next to the service table, there are two big shelves for fabrics and accessories with a panel between them. On the other side of the room next to the fitting



Picture 25. Design board for Artenio company.

room, there is a cash box on a bar table, two big shelves for fabrics and a stand with threads. Also, in the middle of the room there is another big table where the owner may sew ordered clothes.

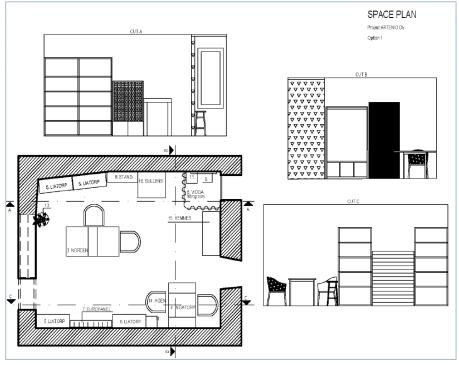


Figure 14. Space plane No.1.

The second space plan made for Artenio Oy is presented in Figure 15. On the second space plan a fitting room is located at the bottom right corner and next to it there is a stand with threads, two big shelves for fabrics and accessories with a panel between them. Near the right wall is a service table and next to it is a cash box on a bar table with a shelf for samples of the clothes. Next to the shelf with samples there are three big shelves for fabrics and a second big table is in the middle of the space.

The third space plan made for Artenio Oy is presented in Figure 16. On the third space plan the fitting room is located at the top left corner next to the window.

A service place is located next to the fitting room and next to the former there is a big shelf with fabrics. At the middle of the right wall is a shelf with samples of clothes. In the right bottom corner, there is a cash box on a bar table, next to it is a stand with threads, a panel for accessories and two big shelves with fabrics.

The main reason for creation of three different space plans was to explore three different alternatives of possible space planning at Artenio. In the work process, the space planning standards, such as standard depth measurements for chairs

placed in relation with table and other standard distances (Rakennustiedot Oy, 2012) were considered to visualize different acceptable interior design solutions that could be implemented.

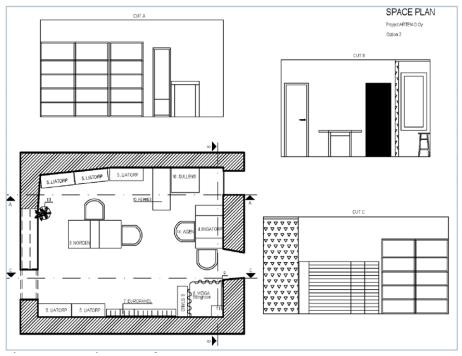


Figure 15. Space plan No.2.

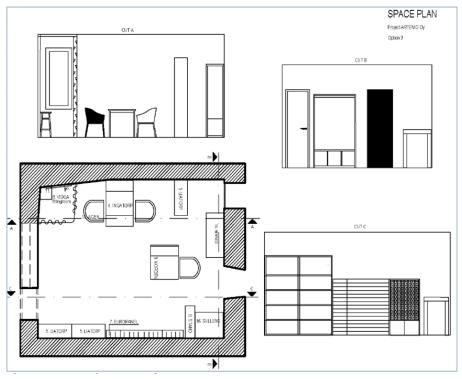


Figure 16. Space plan No.3.

3.13 Customer flow plans

In case of Artenio, customer flow maps were created, as according to mystery shoppers' feedback the customers were not satisfied with the customer flow in the space plan of Artenio Oy which existed at the beginning of the research.

Customers flow map is a mix of a customer journey map and a space plan, which was created to track customer steps inside Artenio atelier space for better understanding of space functionality and customer satisfaction during the service providing process. In addition, this type of flow map can help to choose the most comfortable space plan from the point of view of the space end-user.

First, an existing customer flow plan of Artenio was created to visualize potential pain points for each persona. Also, later this customer flow plan would be compared with three individual alternative customer flow plans, which were created for each space plan alternative. A customer flow plan of a space plan which existed at the beginning of the research is presented in Figure 17.

The flow map contains a short legend for each persona and step-by-step movements inside Artenio premises. Each persona created for Artenio case has its own color for better visualization of the flow. Persona No.1 is shown in brown, and according to her needs she came to pick up her new dress, thus she moves from the entrance (1) to the sewing table (2,3), then to the fitting room, which

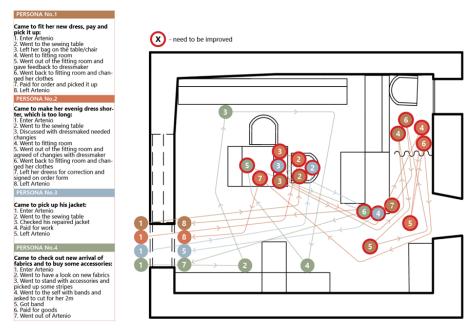


Figure 17. A customer flow plan of Artenio space which existed at the beginning of the research.

is located right after the cashbox (4), next, Persona No.1 goes out of the fitting room in the new dress and discusses final changes with the dressmaker, then she goes back to the fitting room to undress, (5,6) and finally pays (7) and leaves Artenio (8). Persona No.2 is shown with the red color as she comes to make her evening dress shorter. She moves from the entrance (1) to the sewing table (2,3) to discuss the needed changes, next, Persona No.2 goes to the fitting room (4,5,6) and after that – to the sewing table to fill an order form (7) and then leaves the atelier (8). Persona No.3 is shown with the blue color and he comes to pick up a jacket, so Persona No.3 moves from entrance (1) to the sewing table (2, 3), then to the cashbox to pay for the service (4) and then leaves Artenio (5). Persona No.4 is illustrated with a green color, she comes to buy some accessories and check out new arrival of fabrics, so she moves from the entrance (1) to the shelves to check fabrics (2) and accessories (3,4), buys some bands (5,6) and then leaves (7).

Based on customer feedback there is a need for customer service point as well as a need to move a cash box away from the fitting room. Moreover, other potential pain points that happen during a service process are marked by red circles in Figure 17 – the customer flow plan of Artenio space plan which existed in the beginning of the research. For example, a sewing table is overloaded with different kinds of activities besides its main function.

The fitting room is located too far away from the chair where customers can leave a bag, and this can create an uncomfortable / unsafe feeling during the fitting of their dresses. According to the basics of proxemics "it is proved that a person increases the frequency of breathing and heartbeat if they sit with an

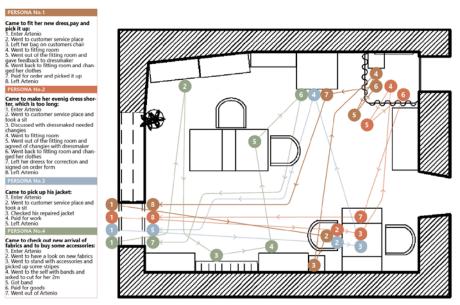


Figure 18. Customer flow map for space plan No.1.

open space behind their back, especially if there is a constant walking behind their back. In addition, tension grows, when person's back is turned towards an entrance door or a window, especially if this window is on the ground floor" (Pyatigorsk State Linguistic University, 2012).

According to the customer flow map created for space plan No.1, this space plan (Figure 18) gives a chance to move Persona No.1, Persona No.2 and Persona's No.3 activities to the right wall, so Persona No.4 gets a lot more space and can explore the contents of the shop. At the same time, the cashbox and the customer service point are located against opposite walls so it gives an opportunity for customers to pay, while another customer can be serviced at customer service point. Furthermore, adding one more table gives a possibility to serve Persona No.4 at the place different from Persona No.1, Persona No.2 and Persona No.3.

Customer flow map No.2 created for space plan No.2 (Figure 19) demonstrates a different perspective to customer flows in Artenio. On the customer flow map No.2 customer service table is located between the cashbox and the fitting room near the right wall, which leaves a lot of space for Persona No.4 and moves almost all activities of Persona No.1, No.2 and No.3 to the one side. In this case Persona No.4 can be served separately when other customers are in the fitting room or waiting for their orders.

Customer flow map No.3 for space plan No.3 (Figure 20) describes how all four Personas are moving within the space if the fitting room is located next to the window. In this situation the main service activities, such as fitting of dresses, order placement and receiving orders, related to Persona No.1, Persona No.2 and Persona No.3 are concentrated in the top left corner. Besides, the location

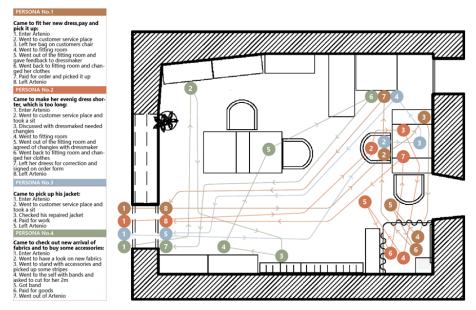


Figure 19. Customer flow map for space plan No.2.

of the cashbox in different places creates additional customer flows but keeps enough space for Persona No.4 to explore the shelves at Artenio and buy products.

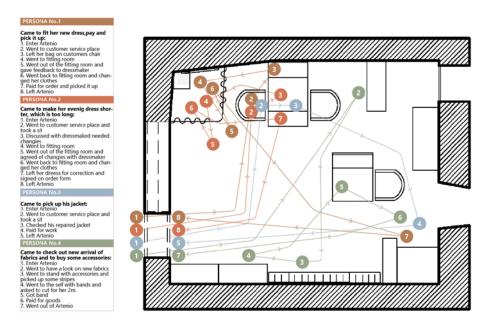


Figure 20. Customer flow map for space plan No.3.

Comparing all three alternative space plans based on the customer flow maps facilitates understanding possible customer flows within the space and choosing the most comfortable solution of interior design from the customer perspective and considering the service provision. A decision on the most comfortable solution was made by the author of the thesis.

3.14 Three-dimensional modelling

Three-dimensional modelling is a tool of interior design, which allows to create realistically looking objects by using three-dimensional software. Creation of a three-dimensional model allows to show the object from all three axes, X, Y and Z. A process of creating three-dimensional drawings includes five necessary steps, such as: modelling, texturing, lighting, animation, and visualization (Kubanova, 2016.)

Modelling includes creation of all presented objects. Texturing allows to add textures on surfaces of created objects as well as adjust colors, transparency, brightness, and other parameters of surface properties to achieve a realistic look of objects. Lighting helps to adjust the brightness level by adding and placing light sources. Animation helps to change the position of the objects while visualization allows to create a final image. (Kubanova, 2016.)

Three-dimensional drawings became popular, and many designers chose them instead of manual drawing methods. It happened because of following reasons: "people are used to working digitally in other areas of their lives, so the production of drawings by digital means is a natural extension of their skills; it also allows changes to drawings to be made quickly and easily, and the exchange of drawings is reasonably trouble-free" (Dodsworth, 2009).

4

CONCEPT

The main research methods of this study were desk analysis, benchmarking, observation, expert interview, and case study. The desk analysis helped to gather existing studies and research articles about design thinking, interior design, service design, and their confluence, which is the main subject of this thesis. Furthermore, the desk analysis supported the chosen case study topic. Both benchmarking and observation were an important part of the case study and thus helped to better define the focus of the case study. The expert interviews provided professional perspective about benefits of using interior and service design disciplines together for interior design projects. Finally, the case study helped to explore the possibility of using service design methods in the real-life interior design project. In addition, the results of case study proved, that service design could provide a useful perspective on interior design, so all users of the space would benefit from the interior design solution.

Based on knowledge gathered during the studies at Helsinki Design School, the author formulates the two main purposes of interior design as a design field, i.e., aesthetical and functional. This means that the suggested interior design solution should be implemented according to concepts and rules of the certain interior design styles and should correspond to functional needs of the space user. However, this definition lacks the answer to the following question – how the interior design can improve the service that companies provide in their space. To answer this question service design methods and tools had to be used for the interior design project.

The use of service design in interior design projects for businesses is critical because any space without services can be considered a "container", while after adding services such space becomes a dynamic system, which should support

service providing processes and no longer can be considered as the "container", because it becomes a "space of services" (Felix, 2011).

Artenio company was selected as the case study for this research. The case study was conducted during the years of 2019 – 2020. The initial idea was to combine service design and interior design tools and methods for an interior design project with the goal to create a functional layout of a commercial space. The main goal of the project was to improve customer experience of existing services of Artenio Oy by using tools and methods from both interior and service design disciplines.

Artenio was chosen for the case study because it is a small business which features a physical space where interaction with customers happened. The company provided services as well as organized production process within the same facility. Furthermore, the research idea was fully supported by the owner of the company. All mentioned points made Artenio an ideal candidate for the case study.

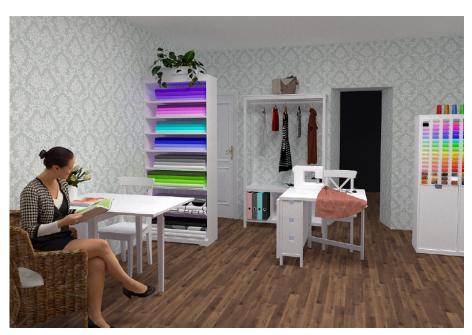
During the research, the author of the thesis exploited a multitude of service design methods and tools, including interview, benchmarking, observation, stakeholder map, business model canvas, service blueprint, personas, customer journey, and mood board. To achieve the goal of this project not only the methods listed above but also the following interior design methods and tools were used: interview (brief), mood board for interior, mystery shopper, space planning and three-dimensional modeling.

The information collected and the results obtained due to the use of the listed tools and methods provided a base to create a transdisciplinary tool combining both interior and service design. This transdisciplinary tool was a customer flow plan. The customer flow map ensured a better understanding of customer activity within Artenio's space. This design tool was created to test a transdisciplinary approach in the real-life project. The customer flow map combines a space plan and a customer journey, which is also supported by legends of personas. Such a tool provides a perspective on possible customer pain points within Artenio physical space. Moreover, a customer flow map was used to create a possible layout improvement of Artenio's space and to improve customer flow, at the same time, making the space where Artenio operates more functional for its owner.

On a final stage of the project, a summary meeting with the owner of Artenio was organized, where the most functional customer flow plan was selected. This customer flow plan later was visualized in three-dimensional model to provide a complete visual solution. During discussion (4.4.2020) with the owner of the company for the final three-dimensional visualization space plan No.3 was chosen. Three-dimensional visualization of the ultimate space plan No.3 is presented in Pictures 26 -28. Three-dimensional visualization of Artenio space included real- size furniture from the design board, as well as some

how the interior design can improve the service that companies provide in their space.

decorative elements. The main goal of creating three-dimensional visualization was to present a finalized interior design solution, which was elaborated based on both service and interior design tools and methods that were applied in this case study.



Picture 26. Three-dimensional visualization of space plan No.3.



Pictures 27 - 28. Three-dimensional visualization of space plan No.3.

The findings and results of the case study were highly appreciated by the owner of Artenio. In a long term, those findings changed the point of view of the Artenio's owner on her business, for example, the owner started to see the whole business, including the space, as a complete model where space is a continuation of the service. Furthermore, the use of service design methods

allowed the owner to step into customer's shoes. This case study became a catalysator for continuous improvements in the service providing process. Since then, plenty of changes has happened within the Artenio's space. However, the case study did not include an implementation phase due to research limitation. Still, Artenio company received a complete design solution, including all data collected during the research. Below there are several pictures of Artenio taken during summer 2020.



Picture 29. Artenio after the case study.



Picture 30. Artenio after the case study.



Pictures 31-32. Artenio after the case study.

Despite serious challenges 2020, including corona pandemic, Artenio significantly improved their interior design and, according to a last update from the owner, more changes were coming.

Among the most effective service design methods and tools used in the Artenio case study there were benchmarking, interview, business model canvas, personas, customer journey, mystery shopper and mood board. The benchmarking helped to pick up ideas of space organization from the competitors. The interview (brief) provided detailed information about a required functionality of the space. The business model canvas was useful for extracting the most profitable areas of business and, as a result, lead research to critical customer groups. The personas, on the other hand, assisted to visualize customers of Artenio and make the research more specific. The mystery shopper was effective in a way that the real potential customers of Artenio could give their own feedback about the service and space as well as to express their personal expectations and visions of the interior design of Artenio. The mood board facilitated creating an impression of a desirable atmosphere of the space through collected pictures. The attempt was made to keep mood board pictures in mind during the creation of the interior design solutions.

The less effective tools and methods for this case study were observation, blue-print, and stakeholders' map. The observation appeared to be challenging as it was impossible to conduct a full observation due to the specific of business and the space limitations, otherwise observation could have provided more useful details on customers' behavior within the space. These details might have been used for creation of the final interior design solutions. Both the blueprint and stakeholder's map failed to be effective due to a micro size of a company. These tools would have been more constructive for larger and more complex businesses, where more than one company employee was involved in service

providing processes. In latter case both blueprint and stakeholders' map would have offered a deeper understanding of complexity of services helping to track all interactions within the space not only from the customer point of view but taking into the account the opinion of service providers as well.

The combination of personas and customer journey with interior design tools, such as space planning, were used to create the transdisciplinary approach. In other words, personas and customer journey became the core tools for developing the interior design solution for this case study.

The Artenio case study has demonstrated, that the use of service design methods and tools for interior design projects prepared for businesses could become a crucial aspect of the successful interior design solution. In other words, service design can help create a unique layout that is both comfortable and functional, focusing at the same time on the needs of the business and the customer.

5 CONCLUSIONS

Service design and interior design are equally widely used design approaches. While the service design is usually applied in the development and improvement of both existing and new services and products, the interior design is frequently used to organize interiors from the functional and esthetical perspectives. The main goal of this research was to apply a combination of the interior and service design approaches to improve services within the physical space.

Few research methods were used in this study, such as: desk research, observation, benchmarking, interview, and case study. The main research method was the case study. The case study as a research method allowed to implement as many service and interior design tools and methods as possible in the real-life situation with a purpose to develop an interior design solution. As a result, the most effective methods and tools representing both disciplines were selected based on the research. A case study research requires a real-life project. The interior improvement of Artenio atelier, a small company in Helsinki, was chosen as the project of the case study.

RQ: How may service design and interior design be combined?

Answering the first research question it is possible to conclude that interior design and service design can be combined. Based on results of the case study either discipline can enrich each other and help to create unique interior design solutions for small businesses.

Service design allows to consider the needs of all customers inside the space, and it works well in combination with interior design to solve challenging space planning aspects. On the other hand, the use of service design means that users of the space are involved into the decision-making process regarding

the interior design of the space either indirectly, for example, through mystery shopping, or directly, through interviews.

Furthermore, by involving service design within interior design project, it is possible to improve service providing process by turning the space into the continuation of the service. In other words, it helps to create a space that reflects company values. For instance, if company value is to care about customer comfort, the space of this company should match the level of comfort. The same approach can potentially be used for more complex cases as well. The main difference will concern the amount and types of methods and tools implemented during a project.

This study also shows that a dialog between users and designers is relevant and that the existence of touchpoints is a necessary term for successful realization of spatial design projects. The participation of other stakeholders is also crucial if design is implemented as a strategy.

SQ: Can interior and service design be used together through a design thinking approach?

The use of design thinking allows to create new tools by combining various existing tools to better fit the needs of the project at hand. As one of interviewed experts mentioned, "design is about creating new tools, using existing ones is called management". During the Artenio case study, a customer flow plan tool was created. The customer flow plan is a transdisciplinary tool that includes elements of both interior design and service design. It helps to follow customer flow within the space of Artenio and analyze potential pain points. This result was achieved by combining a space planning tool with a customer journey and personas through design thinking approach. For Artenio, the customer flow map helped to find functional space plan that later was used to create an interior design solution. Resulting from the case study of Artenio, service design and interior design can be employed together through the design thinking approach to develop better interior design solutions for small businesses.

SQ: What common ground is there between interior and service design?

The fundamentals of design disciplines share a lot in common, whether this is service design, interior design, or other design discipline. For example, all design disciplines are user-focused, they apply both creative and intuitive thinking, as well as experimental and iterative. As a result, the same tools and methods can be found in different literary sources in design disciplines. For example, interior design and service design are likely to use common tools, such as: interview, mood board and observation. Thereby, these two disciplines apply same methods and tools for collecting information about customers and their needs.

design is about creating new tools, using existing ones is called management

Moreover, the design processes representing both disciplines are essentially quite similar. Both design processes include closely related stages or phases, such as analysis and research, development and ideation, and prototyping and implementation. On top of that, these two design processes have a clearly defined sequence, where each phase follows another.

It is likely that in the future service and interior design will merge into a single discipline. The discipline that will apply methods and tools of both directions as well as develop new ones through design thinking approach. In such discipline service will be inseparable from space and vice versa. As Elsie De Wolfe, a first interior designer, said, "interior design is about how does space feels".

As a future research it might be useful to expand and test the same approach on larger businesses, as well as in public sector. The use of the cases for larger organizations will also allow the researcher to test more methods and tools acceptable in both disciplines. As a result, the most effective methods and tools of interior and service design can be outlined and selected for transdisciplinary toolbox from a wider sample. In addition, applying cases for larger companies and organisations could provide a foundation for the creation of new or scaling up existing transdisciplinary tools and methods.

With proper attitude, this research strategy is likely to lead such a project to the implementation phase where it would be practical to follow up a similar project into the implementation phase. Credibly, the final phase is expected to provide more detailed feedback on effectiveness of the combining tools and methods representing both design disciplines, as well as the created transdisciplinary tool. Additional information of this kind is plausible for a better research analysis. Through the results of the said analysis a starting point for the next iteration of the research may be outlined.

It is worth remembering that space improvement is a continuous process because requirements to functionality of the space are likely to change with time. This is likely to happen due to changing external factors that might appear. Therefore, the research could also continue as a next iteration of Artenio case study aiming to further improve the space or create new services within this space based on service design research.

REFERENCES

Alkhalidi, A.S. 2014. Future Directions of Interior Design Education. ICIRS Conferences, Journal of Leadership, and International Development. Accessed: 26.10.2020. Available at: http://www.scholarpractitionerjournals.com/article/future-directions-interior-design-education

Alshenqeeti, H. 2014. Interviewing as a Data Collection Method: A Critical Review. Saudi Arabia: Taibah University. Accessed: 21.03.2021 Available at: https://www.researchgate.net/publication/269869369_Interviewing_as_a_Data_Collection_Method_A_Critical_Review

BBH Stockholm, 2018. The service design handbook. Accessed: 07.06.2020. Available at: https://uploadsssl.webflow.com/5bae21eee50550d-61cdd0e1d/5bbde533f2fd2f9dd851ba2f_Service%20Design%20Handbook%20-%20WEB.pdf

Brightlocal, n.d. Reputation maker. Build the best online reputation. Accessed: 19.09.2020 Available at: https://www.brightlocal.com/reputation-manager/

Bradshaw, J. 2019. The Phases of Service Design. Forum One. Accessed: 26.10.2020. Available at: https://www.forumone.com/ideas/ the-phases-of-service-design/

Cambridge dictionary. Accessed: 26.10.2020. https://dictionary.cambridge.org/dictionary/english/interior-design

Camocini B., Collina L., Daglio L., Mazzarello M. and Trapani P. 2018. Service Design Methods and Tools as Support to the Participatory Definition of the Meta-design Brief of a Contemporary Integrated Campus. Linköping: Linköping University Electronic Press. Accessed: 25.10.2020. Available at: http://www.servdes.org/wp/wp-content/uploads/2018/07/61.pdf

Carlorattiassiciati, 2018. Science for Citizens. Accessed: 26.10.2020. Available at: https://carloratti.com/project/science-for-citizens/

Dam, R. F. and Siang, T. Y. 2020. 5 Stages in the Design Thinking Process. Accessed: 24.10.2020. Available at: https://www.interaction-design.org/literature/article/5-stages-in-the-design-thinking-process

Dewitt, S. and Mcluskie, P. 2019. Design Thinking pedagogy and enterprise education. Conference: 14th European Conference on Innovation and Entrepreneurship ECIE 2019. Greece: University of Peloponnese Kalamata. Accessed: 24.10.2020. Available at: https://www.researchgate.net/publication/336319332_Design_Thinking_pedagogy_and_enterprise_education#fullTextFileContent

Dictionary.com. Accessed: 02.07.2020. Available at: 23.10.2020. https://www.dictionary.com/browse/interior-design

Dodsworth, S. 2009. The Fundamentals of Interior Design. Switzerland: AVA Publishing SA.

Eurokangas, n.d. Accessed: 07.07.2020. Available at: https://www.eurokangas.fi/

Fassi, D. & Galluzzo, L. 2018. Experiencing and shaping: The relations between spatial and service design. Milano: Politecnico di Milano. Accessed: 30.10.2020. Available at: https://www.researchgate.net/publication/327253763_Experiencing_and_shaping_The_relations_between_spatial_and_service_design

Fassi, D.; Galluzzo, L. & De Rosa, A. 2018. Service+Spatial design: Introducing the fundamentals of a transdisciplinary approach. Milan: Politecnico di Milano. Accessed: 30.10.2020. Available at http://www.servdes.org/wp/wp-content/uploads/2018/07/71.pdf

Felix, E. 2011. Learning Space Service Design. Journal of learning spaces November 2011, Vol. 1. Accessed 28.06.2020. Available at https://files.eric.ed.gov/fulltext/EJ1152686.pdf

Finder a, 2020. Kangaskauppa Materials. Accessed: 05.07.2020. Available at: https://www.finder.fi/Kangaskauppa/Kangaskauppa+Materials/Helsinki/yhteystiedot/497771

Finder b, 2020. Suomalainen Nappitalo-Finska Knapphuset Oy. Accessed: 05.07.2020. Available at: https://www.finder.fi/Ompelutarvikkeet/ Nappitalo/Helsinki/yhteystiedot/176184

Gagnon, Y-C. 2010. The Case Study as Research Method. A Practical Handbook. Accessed 23.06.2020. Available at: https://books.google.fi/books?hl=fi&lr=&id=ouTW4b7WInUC&oi=fnd&pg=PR7&dq=case+study+as+research+method&ots=o_OHzatUjC&sig=wTQ2nzAN6i5-pVt1HK4IS1yMa7Q&redir_esc=y#v=onepage&q=case%20study%20as%20research%20 method&f=false

Galetta, D. 2016. Newly renovated Strozier Library ready for finals week. Florida State University News. Accessed: 21.03.2021. Available at: https://news.fsu.edu/news/university-news/2016/12/06/newly-renovated-strozier-library-ready-finals-week/

Given, LM. 2008. The Sage Encyclopedia of Qualitative Research Methods, Los Angeles, Calif.: Sage Publications.

Gibbons, S. 2017. Service Blueprints: Definition. NN/g Nielsen Norman Group. World Leaders in Research-Based User Experience. Accessed: 21.03.2021 Available at: https://www.nngroup.com/articles/service-blueprints-definition/

Goncharuk, A., Lazareva, N., Alsharf, I. 2015. Benchmarking as a performance management method. Polish Journal of management studies, 2015, Vol.11 No.2

Google support. Write reviews and add ratings of places. Accessed 23.06.2020. Available at: https://support.google.com/maps/answer/6230175?co=GENIE. Platform%3DDesktop&hl=en

Hague, P. A Practical Guide to Market Research. Grosvenor House Publishing Ltd. Accessed: 31.10.2020. Available at https://www.b2binternational.com/assets/ebooks/mr_guide/04-market-research-ch4.pdf

Haradhan, M. 2018. Qualitative Research Methodology in Social Sciences and Related Subjects, Journal of Economic Development, Environment and People.

HEC. Lecture: Design thinking innovation.
The 3 phases of design thinking. Accessed:
06.07.2020. Available at: https://www.coursera.
org/lecture/design-thinking-innovation/
the-3-phases-of-design-thinking-caLYT

Helsinkikuvia, 1934. Etu-Töölö. Accessed: 05.07.2020. Available at: https://www.helsinkikuvia.fi/search/record/?search=etu-t%C3%B6%C3%B6&page=2

Hesselink, M. and Wiele. T. n.d. Mystery Shopping: In-depth measurement of customer satisfaction. Accessed: 11.07.2020. Available at: https://pdfs.semanticscholar.org/3fd2/df715b7e9b044561bd379aa300ed1616c8ed.pdf?_ ga=2.265903943.995407161.1594325945-551867196.1594325945

Jamshed, S. 2014. Qualitative research method-interviewing and observation. Journal of Basic and Clinical Pharmacy. Vol 4. 2014. Accessed: 26.10.2020. Available at: https://www.jbclinpharm.org/articles/qualitative-research-methodinterviewing-and-observation.pdf

Jetmarova, B. 2011. Comparison of best practice. Benchmarking model. Problems of management in the 21st century. Vol 2, 2011. Czech Republic: University of Pardubice. Accessed: 20.09.2020. Available at: https://www.scientiasocialis.lt/pmc/files/pdf/Jetmarova_Vol.2.pdf

Jukkajoutsi, 2020. Etu-Töölö, kaupunginosa #13. Accessed 26.10.2020. Available at: http://www.jukkajoutsi.com/hesa13.html

Kantokorpi, S. n.y. Salla Kantokorpi – Interior Architect. Accessed: 26.10.2020. Available at: http://www.sallakantokorpi.com/

Katzan, H. 2011. Essentials of Service Design. Journal of Service Design. Vol. 4, Number 2. USA: Webster University. Accessed: 31.10.2020. Available at: https://www.researchgate.net/publication/292952356_Essentials_Of_Service_Design

Kauppalehti a, n.d. Villisilkki Oy. Accessed: 07.07.2020. Available at: https://www.kauppale-hti.fi/yritykset/yritys/villisilkki+oy/07105673

Kauppalehti b, n.d. Eurokangas Oy. Accessed: 07.07.2020. Available at: https://www.kauppale-hti.fi/yritykset/yritys/eurokangas+oy/03644119

Kawulich, B. 2012. Collecting data through observation. Georgia: University of West Georgia. Accessed: 03.11.2020. Available at: https://www.researchgate.net/publication/257944783_Collecting_data_through_observation

Kubanova, A. 2016. The process of creating a 3D model of a hotel interior. Bachelor's Thesis Information Technology. University of Applied Sciences MAMK. Accessed: 14.07.2020. Available at: https://www.theseus.fi/bitstream/handle/10024/112866/AlisaKubanovaThesis.pdf?sequence=1&isAllowed=y

Lake, F. 2016. Human Centered Design vs Design Thinking vs Service Design vs UX What do they all mean? Accessed: 15.02.2021. Available at: https://www.linkedin.com/pulse/ human-centred-design-vs-thinking-service-uxwhat-do-all-simonds

Lenz, M. The Evolution of Service Design. Accessed: 26.10.2020. Available at: https://nextconf.eu/2012/08/ the-evolution-of-service-design/#gref

Lihhavtsuk, R. 2020. Design Intervention: Prologue. Accessed 29.11.2020. Available at: https://lihhavtshuk.medium.com/ design-intervention-prologue-d17b518da16a

Mager, B. Service Design - An Emerging Field. Accessed: 08.09.2020. Available at: https://www.academia.edu/20566424/ Service_Design_-_An_Emerging_Field

Manolica, A. and Roman, T. 2012. Mystery Shopping Research - Seeing the Company's Performance Through the Eyes of the Customers. Scientific Annals of the "Alexandru Ioan Cuza" University of Iaşi Economic Sciences. Accessed: 11.07.2020. Available at: https://www.researchgate.net/publication/271383282_Mystery_Shopping_Research_-_Seeing_the_Company's_Performance_Through_the_Eyes_of_the_Customers

Marchant, R. 2017. The Impact of Online Reviews on Businesses. Accessed: 22.09.2020 Available at: https://www.brightlocal.com/blog/ the-impact-of-online-reviews/

Materials, n.d. Accessed: 05.07.2020. Available at: https://www.sp-materials.fi/

Martins, F. S., Serra, F. A. R., Carneiro da Cunha, J. A. 2018. Secondary data in research – uses and opportunities. Additional Comments. Euromerican Journal of Strategic Marketing.

Mikhailova, E. 2001. Basics of benchmarking. Management in Russia and abroad.

Millner, M. E. 2014. How Many Service Designers Does It Take to Define Service Design? Accessed: 26.10.2020. Available at: https://medium.com/@meganerinmiller

MindTools, 2018. Stakeholder Mapping. Accessed: 26.07.20120. Available at: https://www.mindtools.com/pages/article/newPPM_07.htm

Moritz, S. 2005. Service Design. Practical Access to an Evolving Field. London. Accessed: 27.10.2020. Available at: https://issuu.com/st moritz/docs/pa2servicedesign/14

Moyle, W. 2002. Unstructured interviews: challenges when participants have a major depressive illness. School of Nursing, Griffith University, Kessels Road, Nathan, QLD 4111, Australia. Accessed: 27.10.2020. Available at https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1365-2648.2002.02273.x

Mueller-Roterberg, C. 2018. Handbook of Design Thinking. Tips & Tools for how to design thinking. Accessed: 16.10.2020. Available at: https://www.researchgate.net/publication/329310644_Handbook_of_Design_Thinking

Muijs, D. 2011. Doing Qualitative Research in Education with SPSS: Second Edition. Accessed: 03.12.2020. Available at: https://books.google. fi/books?hl=fi&lr=&id=apFMQHF768EC&oi=fnd&pg=PR5&dq=Muijs,+D.+2011.+Doing+Qualitative+Research+in+Education+with+SPSS:+Second+Edition&ots=Wwimq2k6-Z&sig=BfQez0vPRH5sC4fVt-okiC-GD1-A&redir_esc=y#v=onepage&q&f=false

MyHelsinki, n.d. Accessed: 05.07.2020. Available at: https://www.myhelsinki. fi/en/see-and-do-neighbourhoods/ t%C3%B6%C3%B6l%C3%B6-and-lapinlahti/ etu-t%C3%B6%C3%B6l%C3%B6

Suomalainen Nappitalo-Finska Knapphuset, n.d. Accessed: 26.03.2021. Available at: https:// www.nappitalo.fi/

Ojasalo J. & Ojasalo K., 2018. Service Logic Business Model Canvas for Lean Development of SMEs and Start-Ups. Service Logic Business Model Canvas", Journal ofResearch in Marketing and Entrepreneurship, Vol. 20. Accessed: 21.03.2021. Available at: https://www.researchgate.net/publication/338300234_Service_Logic_Business_Model_Canvas_for_Lean_Development_of_SMEs_and_Start-Ups

Ozcan, A. C. 2019. Thinking and Design with Design Thinking. Markets, Globalization & Development Review. Vol. 4, Number 2. Accessed: 21.03.2021. Available at: https://digitalcommons.uri.edu/cgi/viewcontent.cqi?article=1126&context=mgdr

Paranick, A. 2018. Elsie de Wolfe: America's First Interior Designer. Accessed: 21.03.2021. Available at: https://blogs.loc.gov/ headlinesandheroes/2018/07/elsie-de-wolfe/

Pleshchivtseva, T. 2008. Undercover client. 24.au

Pyatigorsk State Linguistic University, 2012. Lecture 4. The basics of proxemics. Accessed: 13.07.2020. Available at: https://studfile.net/preview/3191157/

Quicksey, A. 2018. Service Design for Public Policy. Accessed: 26.10.2020. Available at: https://medium.com/@angelquicksey/service-design-for-policy-b0a9408dced1

Rakennustiedot Oy. 2012. Asuintilojen suunnittelu. Rakennustietosäätiö RTS. Helsinki.

RECHI, 2016. Inside The New Apple Retail Store Design. Accessed 26.6.2020. Available at: https://rechiretail.com/ inside-new-apple-retail-store-design/

Ryan, F., Coughlan, M., Cronin, P. 2009. Interviewing in qualitative research: The one-to-one interview. International journal of Therapy and Rehabilitation, June 2009. Vol 16 N6 Accessed: 09.10.2020. Available at: https:// www.researchgate.net/publication/261471599_ Interviewing_in_qualitative_research

Serv.Des. Service Design and Innovation conference. Accessed 21.6.2020. Available at: http://www.servdes.org/about-servdes/

Smit, B. and Onwuegbuzie A. J. 2008. "Observations in Qualitative Inquiry: When What You See Is Not What You See" Accessed:15.02.2021. Available at: https://journals.sagepub.com/doi/full/10.1177/1609406918816766

Stickdorn, M. & Schneider, J. 2011. This is Service Design Thinking: Basics, Tools, Cases. Canada: John Wiley & Sons.

Stickdorn, M.; Schneider, J.; Lawrence A. & Schneider J. 2018. This Is Service Design Doing. Applying Service Design Thinking in the Real World". Canada: O'Reilly Media.

Suomalainen Nappitalo-Finska Knapphuset, n.d. Accessed 05.07.2020. Available at: https://www.nappitalo.fi/epages/nappitalo. sf/fi_FI/?ObjectPath=/Shops/2016122201/ Categories/Nappitalo Tamgaz, T. 2018. The Interior Design Course. Principles, practices, and techniques for the aspiring designer. United Kingdom: Thames & Hudson.

Tantawy, D.M.A. 2015. The Furniture Layout Using the Interior Design Guidelines. International Journal of Sciences: Basic and Applied Research.

Tu Ngoc, P. & Fassi, D. 2018. Design thinking for interior and spatial design: A case study within Politecnico di Milano. Milano: Politecnico di Milano. Accessed: 23.10.2020. Available at: http://www.ep.liu.se/ecp/150/065/ecp18150065.pdf

Tuominen, K. 2016. The Path to Development. Introducing Benchmarking. Oy Benchmarking Ltd, benchmarking training.

UK Design Council. Design Methods for Developing Services. Introduction to service design and a selection of service design tools. Accessed: 09.10.2020. Available at: https://www.designcouncil.org.uk/sites/default/files/asset/document/Design%20methods%20 for%20developing%20services.pdf

UK Design Council, 2010. What is Service Design? Accessed: 26.10.2020. Available at: https://www.designcouncil.org.uk/news-opinion/video-what-service-design

Van Geetsom, N. 2018. Space and service design into educational practice. Mechelen: Thomas More University of Applied Sciences. Accessed: 31.10.2020. Available at: http://www.servdes.org/wp/wp-content/uploads/2018/08/72.pdf

Vianna, M.; Vianns, Y.; Adler, I.K.; LUcena, B; Russo, B. 2012. Design Thinking. Business Innovation. 1st edition. Rio de Janeiro. Accessed: 16.10.2020. Available at: http://cdn2.hubspot.net/hubfs/1701231/Documents/Design_Thinking_-The_Book/Design_Thinking_The_Book.pdf

Villisilkki, n.d. Accessed: 26.03.2021. Available at: https://www.villisilkki.fi/

Webster, K. 2001. A Decorator's Life: Elsie De Wolfe 1865 – 1950, Canadian Interior Design website. Accessed: 08.09.2020. Available at: https://web.archive.org/web/20060311075659/http://www.canadianinteriordesign.com/kwi/Page 2/Elsie De Wolfe.htm

Yogo, T. 2019. How to Face "Design Thinking": Human-centered problem solving and designer's attitude to approach. Markets, Globalization & Development Review. Vol. 4, Number 2. Accessed: 04.11.2020. Available at: https://digitalcommons.uri.edu/cgi/viewcontent.cgi?article=1090&context=mgdr

Zainal, Z. 2007. Case study as a research method. Journal Kemanusiaan bil.9, Jun 2007. Faculty of Management and Human Resource Development Universiti Teknologi Malaysia. Accessed: 10.11.2020. Available at: http://psyking.net/htmlobj-3837/case_study_as_a_research method.pdf

APPENDIX 1

Interviews with experts

Interview with Salla Kantokorpi

1. Do you have any experience in designing public spaces? Could you tell me more about it and give some examples?

"Do you mean spaces in public sector or / and commercial spaces? I have designed both – commercial spaces including mainly restaurants, offices, retail, healthcare and banking."

2. How does working process with customer happens during projects aimed at public spaces? How do you / your team identify customers' needs? What methods or tools do you typically use for data collection during the project work (interviews, questionnaires, prototyping and others)?

"In "basic" cases I arrange a kick-off meeting / workshop with the client to understand the needs. I aim to understand the major variables like budget, schedule but, most importantly, the effect that is wanted from the space in perspective of functionality and more emotional variables like atmosphere and the question "how do you want your end-user to feel in the space". Normally, in this discussion I get clear picture of the needs and start building the resulting design. I like to work closely with the client during the project to make sure that the design is combining my vision based on the understand of my clients' needs and the everyday needs of the client concerning the use of the space."

"In more complex cases I have worked with the service design team to map the needs and weaker signals. Then the methods of classical service design methods like interviews, questionnaires, prototyping and observation."

3. Does your team or you involve end-users of spaces at ideation stage or on other stages of project?

"Involving end-users in the process is very practical and effective way of getting useful information for the base of the design. It is applied when the project itself is more complex or the angle of the service is new. I have been in part of projects that have involved end-users in the ideation stage and, also, in prototyping, workshopping later on to evaluate the design."

4. Is the Service Design discipline or term familiar to you? If yes, please, tell me more when you first learned about it and give your definition of it.

"I have worked closely with the service design firm Hellon Oy since 2012. But the first I got more familiar with the term was probably year 2010." 5. Do you think that service design can be beneficial for interior (spatial) design? Please openly explain your opinion.

"My goal is to make interior design which serves my costumer as well as possible. To make it happen you should have good understanding of the field, service and the end-users needs. I think service design methods give so much specific material to work with and to base the design on. That material can turn up to be the main driver in design and it can be seen in the finalized projects in many ways."

Interview with Roman Lihhavtsuk

1. What is the connection between UX and service design?

"Service design provides UX designers with a research-based understanding of the users of products or services that designers currently work on. It is imperative for UX designers to understand who the users are, how they think and behave, as well as the context and physical environment where experience is happening."

2. What do you think the role of interior design in such approach can be?

"Interior design helps to bring even more understanding of the context by placing the user into the physical environment where service or usage of a product occurs. This helps to see with your own eyes the whole process and find out the main pain points. Then interior designers can redesign the space or furniture to improve the service. Furthermore, various interior design tools, such as 2d or 3d modelling and VR, can help to better test and plan services."

3. Can you provide some examples?

"During one of the courses at Aalto, design students had recreated a public bus with the driver's seat, tickets machine and passenger seats. Next, they were able to test the whole process of entering the bus, buying a ticket, finding a seat, and then also leaving the bus. Students were also given the opportunity to move things around to test various layout alternatives."

"One more example is Kone's People Flow, where three products, services and spaces are taken into account to improve the navigation of people inside the building."

4. How would you describe coenfluence of service design and interior design from design thinking point of view?

"Nowadays it seems that two main ideas behind design thinking are empathic design and constant prototyping and testing. Emphatic design means that designer should put themselves into the position of a user both physically

and mentally to better understand their experience. Here interior can play an important role by designing the physical space to improve user experience and accessibility. In addition, constant prototyping and testing from an early stage of a project means that to better understand the user, designers should try many different alternatives. Here interior design tools help to create those prototypes, as well as to document the process. As a result, interior design helps both create prototypes and then place users in this physical environment to test the service or product."

APPENDIX 2

Mood board references

PICTURE 1

Pinterest. Accessed: 26.10.2020. Available at: https://br.pinterest.com/pin/391672498838490992/

PICTURE 2

Unsplash, Picture by Celia Michon. Accessed: 26.10.2020. Available at: https://unsplash.com/photos/JIISwPwxPD8

PICTURE 3

Pixabay, Picture by Myriams-Fotos. Accessed: 26.10.2020. Available at: https://pixabay.com/ru/photos/%D1%80%D1%83%D0%BB%D0%B5%D1%82%D0%BA%D0%B0-%D0%B-D%D0%BE%D0%B6%D0%B0%D0%B8%D1%86%D1%88-%D1%88-%D1%82%D0%BA%D0%B0%D0%BD%D1%8C-%D0%BD%D0%BE%D0%B6%D0-%BD%D0%B8%D1%86%D1%88-2406328/

PICTURE 4

FreePik. Accessed: 26.10.2020. Available at: https://www.freepik.com/search?-dates=any&format=search&page=2&query=textile+fabric+texture&sort=popular&type=photo

PICTURE 5

Unsplash, Picture by Júnior Ferreira. Accessed: 26.10.2020. Available at: https://unsplash.com/photos/9Ldb5qqIAlA

PICTURE 6

Unsplash, Picture by Jean-Philippe Delberghe. Accessed: 26.10.2020. Available at: https://unsplash.com/photos/k_OUI2MG5XQ

PICTURE 7

Unsplash, Picture by Thomas William. Accessed: 26.10.2020. Available at: https://unsplash.com/photos/6Sls-TB27kM

PICTURE 8

Unsplash, Picture by Charlota Blunarova. Accessed: 26.10.2020. Available at: https://unsplash.com/photos/r5xHI_H44aM

PICTURE 9

Unsplash, Picture by Volha Flaxeco. Accessed: 26.10.2020. Available at: https://unsplash.com/photos/BCNjBsK37XA

PICTURE 10

Unsplash, Picture by Wang Yan. Accessed: 26.10.2020. Available at: https://unsplash.com/photos/QY0qR938qL8

PICTURE 11

Pinterest, Picture by Gabriela Francis. Article from marlenemukai.com.br. Accessed: 26.10.2020. Available at: https://fi.pinterest.com/pin/159174168067770407/

PICTURE 12

Unsplash, Picture by Matt Artz. Accessed: 26.10.2020. Available at: https://unsplash.com/photos/SmocKx2oDZc