SERVICE LOGICS AND SERVICE DESIGN INTERTWINE IN THE NEW MANAGEMENT COMPETENCES

Multi-disciplinary approaches in service research

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ABSTRACT

Purpose – Management as a profession is complex. This paper discusses the competence development of managers required in service business focusing on service logics and the emerging discipline of service design. This paper examines the new management competences delineated first, service logics as theoretical stronghold and second, linked with service design competences usually regarded as execution skills. The main argument of the paper is that service logics and service design intertwine in the new management competences. Thus, in order to solidify the theoretical foundation and to have impact on business management, service design approach needs to be anchored to one of the conventional academic business disciplines. The purpose of this paper is to show how these new competences are learned.

Design/Methodology/approach – This descriptive single case study uses a combination of collected data (semi-structured survey), discussions, observation and content analysis to understand deeper, what do the master students in service design expect from their studies, how the students evaluate development of their own competences, and how the expectations of master's degree students and the learning outcome requirements i.e. educational competence development requirements (by EQF) differ.

Findings – This paper advances identified new management competences of service logics and service design. Preliminary findings suggest that the management competence develops during higher education slowly and competence requirements are usually fulfilled only when the master thesis project is accomplished. The findings also indicate that students seem to want to complete the expertise on execution level rather than reaching the managerial levels of development and strategy.

Research limitations/implications (if applicable) – This research uses a single case study method to confirm the existence of the occurrence, detected with long-term teaching experience. While this is our first attempt to study how the new management competences develop, there are some shortcomings: it is a single case study and the number of the responses are limited.

Practical implications (if applicable) – The service logics and service design methods bring customers and user experience into the focus of service development. Future managers need to adopt service-oriented mindset and be capable to utilize service design approach with customers and other stakeholders to improve the service business by sensing, seizing and shaping new business opportunities.

Originality/value – Little attention is paid in literature to the influence of service logics into management competences. The contribution of this paper is to advance the intertwined management competences of service logics as theoretical approach which can be operationalized thru service design approach. The paper increases knowledge of the management education in modern service society.

Key words service logics; service design; higher education; management competences; case study

Paper type – Research paper

1 INTRODUCTION

Since the industrial revolution, organizations have operated under the dominant management thought of manufacturing logic. The manufacturing logic, also known as the industrial or product logic, underscores the organization's internal capabilities to achieve competitive advantage through planned productivity and the profitability of the organization. Strategies, organizational structures and management are aimed towards that. As such, organizations target their operations and organizational capabilities to the optimal exchange of mass-manufactured products (goods) thru tangible resources, and with embedded value (i.e. price) in transactions. Thus, the development of the operations has heavily focused on methods improving that situation. Total Quality Management (TQM), business process reengineering (BPR) and demand supply chain management (SCM) are examples of the development methods of this era. The industrial logic turned the perspective of the management inwards of the organization and management of the optimal, often contractual networks. This paper recognises the need for this viewpoint as well, but suggest an extensions to organization's and manager's worldview. Despite some efforts such as mass-customization of products, the role of the customers, consumers, or users has been that of an outsider. The role is that of a passive buyer of the products and services the organizations produce and not being part of the development of the products, or services the organizations provides. Although, diversified ideas such as open innovation (Chesborough 2003) has brought the cooperation with the outsiders of the organization into the focus, the true involvement and understanding of customers has remain low.

The main change at the turn of the millennium can be described as growing complexity rooting from the social aspects, innovation, and service (Meroni & Sangiorgi 2011). In business research, this has led to understanding of the differences in the view organizations are considered and managed: the theoretical paradigm shift from industrial- or production-driven worldview to so called service-driven perspective (later: service logic) is noticed. The recent academic discussion of the theoretical fundamentals and evolution of service research; service marketing and management, service logic, service-dominant logic, customer-dominant logic, service innovation, and service systems (see for example, Grönroos & Voima 2013, Maglio et al. 2010, Payne et al. 2008, Heinonen et al. 2010, Heinonen et al. 2013) clearly illustrate this widespread interest. And it is not that new idea: Grönroos (2006) reminds that the development of service-oriented concepts and models had started already in the 1970s, and related research has since been active especially in Europe. This viewpoint requires a holistic change in managing a business enterprise and novel means to develop the business.

If the **service logic** is a chosen lens to look at the world and business and how organizations are operated and managed, it changes the organizations extensively. **On the strategic level**, this view of marketing as the 21st century service-centred model of exchange in contrast to the viewpoint of goods-centred model of exchange (Vargo & Lusch 2004). Three major changes has been noted: (1) **the business strategy** is no longer only based on the organization's capabilities, i.e. organization-centered view but based on also the customer suggesting organizations to take the **customer-centered view** in to their business orientation. The service perspective means collaborating with and learning from customers, and being adaptive to their individual and dynamic needs (Heinonen et al. 2013). (2) The contemporary role of **the customer is an active co-creator** and co-designer of a service (Vargo & Lusch 2004, Vargo & Lusch 2008). (3) The concept of value, which in industrial logic is the (monetary) mean of exchange that is based on costs (value-in-exchange). For the customer, the cost perspective is somewhat irrelevant while s/he is looking for the long-term **value-in-use** of the service to her/his life (Grönroos & Ravald 2011). In this case, the service experience and the customer/ user experience determine which services are purchased and which are not. *In short,* service logic focuses on service provision (Grönroos 2006); on resource integration (Lusch & Vargo 2014), the creation of value or co-creation of value (Grönroos 2008, Lusch & Vargo 2008) bringing a totally new strategic focus, operational processes, development methods and vocabulary in organizations to name a few changes. Moreover, understanding the spheres of activities (Grönroos & Voima 2013) is of importance.

On operational and executional level, the strategic choice of the service perspective poses several changes. The way the organization was developed and executed according to the industrial logic may not apply while new ways of operating requires contemporary means to achieve the strategic objectives and operational targets. How to increase organization's customer-centric view and truly collaborate with customers, consumers, and users of the service? How does the organization understand the customers and users experiences of the service?

Service design approach has been suggested as conclusive capability to cope within the service society (Wallin Andreassen et al. 2016). As such **service design** provides the required methods, techniques, practices and tools to respond the needs of the customers and the organization. In the past decade, service design has become a widespread phenomenon in business world to develop service business and service. Moreover, service design practices challenges the traditional organizational processes and can be a transformative power in organizations (Kurtmollaiev et al. 2018).

The strategic choice of service logic lens calls for novel methods and tools to operationalise the theoretical constructs in practise. For example, how value is co-created with service provider (network), customers and users requires mind-set change and new ways of developing services. Service design may be in key role with successful service business. Thus, managing and leading service design for the benefit of business is a future management competence.

In order to have impact in business management and to enhance the academic reliability, service design needs to be anchored to one of the conventional theoretical disciplines that the business managers educate themselves on. This paper suggests that service design is anchored to (service) marketing and management. Thus, it would have better success in adaption to management disciplines, business research, and management education and organizations operations than being solely relied on design approach. New competencies are required in understanding holistically the changes based on the changes in worldview from industrial logic to service logic, and also the means of achieving the changes i.e. traditional in-house development methods towards service design methods.

For managers/ organizations/ business management transforming their business to the models of 21st century and to lead service design calls for the new management competences that need to intertwine service logics and service design. Leading service design, e.g. managing the service development in any organizations requires understanding the strategy, development, and executional level competencies. These stem for the theoretical underpinnings of service marketing. The pure executional level expertise on carrying out service design projects is not comprehensive enough. Managers need to have a knowledge on the latest academic research, changes in the business ecosystems, transformations of successful organizations, creation on novel business operations and industries, and understand why this transformation to service driven perspective has such a profound implications to all organizations.

The application of service logic lens with service design approach to management education is new. **Future managers** need wider knowledge on how the individual choices on service design methods, processes, techniques, and tools affect the business on strategic, development and execution levels. To lead service business, service development or service design projects, the future manager needs to understand the business opportunities, the strategic vision of the organization, financial outcomes, impacts on organizational settings and competences, to name a few. Still, currently, **the dominant logic in management education and managing business** is *the industrial logic*, which calls for updates. Modifying the tradition of higher education is not an easy task, but the paper proposes that new insights in management competences are justified.

Modern societies are moving towards service economy. This means the increase of service business and need to develop both the service business and individual services. In particular, service development competences are distinctive competences, which rely on service theories (knowledge) and their implications in practice. The main argument of the paper is that service logics and service design intertwine in the new management competences. Thus, service design needs to be anchored to one of the conventional theoretical business disciplines in order to enhance the academic reliability of it and to have impact in business management.

The role of higher education institutes (HEIs) is to enable graduates from various disciplines to become T-shaped professionals or adaptive innovators (Spohrer et al. 2010, Géczy et al. 2010). Moreover, scholars (Géczy et al. 2010) suggested that HEIs should educate new managers and professionals with service-driven mind-sets. One issue that has received little attention in management literature is that of the influence of service-driven perspective has into management competences and managing business. Likewise, little attention is paid in literature to the influence of service logic and managing organizations. As the paper proposes that service logics and service design intertwine in the new management competences, it also discusses the role of an emerging discipline of service design approach as a part of the new management competency.

This paper discusses the competence development of managers required in service business focusing on service logics as a theoretical approach to direct business and the interdisciplinary field of service design to develop the service. This paper examines the new management competences delineated first, service logics as theoretical stronghold and second, linked with service design competences that are usually regarded as operational execution skills. The paper proposes that these topics need to be educated interdependently rather than independently. The paper assumes that service logics and service design intertwine in the new management competences. Thus, in order to solidify the theoretical foundation of and to have impact on business management, service design approach needs to be anchored to one of the conventional academic business disciplines. This paper presents a conceptual approach with empirical illustrations the curriculum and for teaching the core principles of service logic and service design in management education.

This paper studies the management education in higher education institutes (HEIs) from the service business perspective. This choice is based on the understanding that it is still the business perspective that forms the underlying baseline for the management education. The competence-based master's degree program is embedded in the business environment and thus competencies educated need to relate the changes in business context. This paper advances identified new competences and presents a conceptual approach with empirical illustrations the curriculum and for teaching the core principles of service logic and service design in management education. The purpose of this paper is to show how these management competences are learned.

This paper continues as follows: First, it introduced the novel approach to management education as the intertwined nature of theory and practise. Second, the service design approach and methods are provided. Third, the preliminary findings are presented. Finally, the paper ends with discussions of the challenges met in higher education, conclusions of the study, and suggestions for future research.

2 MANAGEMENT EDUCATION APPROACHED FROM THE SERVICE LOGIC PERSPECTIVE

Over the last decades, services have grown to form the leading economic power in the world (World Bank 2018). In order to respond to the challenges posed by growing complexity of service systems, emergence of multichannel services and customer co-creation of service experiences (e.g. Patrício et al. 2013, Meroni & Sangiorgi 2011) new management competences are required in the service business. Recently, researchers and practitioners with different backgrounds (e.g. Ostrom et al. 2010, Lüftenegger 2014, Greer et al. 2016, Holmlid et al 2017, Sangiorgi et al. 2017, Sangiorgi & Prendiville 2017) have started to call for "*an explicit service-based perspective*" at strategy level of organizations (Lüftenegger 2014). The current academic discussion is dominated by the paradigm change from industrial logic to service logic. The economic shift towards service societies necessitates the academics and industry to create not only new perspectives and theoretical frameworks for service business but also dynamic capabilities that are based on novel practical management competences.

Dynamic capabilities relate to the organization's ability to sense, seize, and transform to generate and exploit internal and external organization specific competences, while both responding to and shaping the environment. Dynamic capability can be defined as the inherent capability of the organization to optimally and purposefully adapt and catapult the organization's resource base. By dynamic capabilities managers alter their resource base to generate new value-creating strategies. A new service dominant world requires novel kind of management competences and highly skilled employees with capacities to combine and integrate. (Teece et al. 1997).

Boland and Collopy (2004, p. 8) have criticized the traditional management education where students "*are trained and rewarded for being decision makers—to have alternatives presented to them from which they make choices by computing net present values, optimizing underassumed constraints, and trading off risks for returns.*" Opposite, they regard managers as an idea generator who gives form to new possibilities and as "*a form-giver who shapes organizations and economic processes*". The challenges presented above have been addressed by the emerging discipline of service design that has been suggested as conclusive capability to cope within the service society (Wallin Andreassen et al. 2016, Kurtmollaiev et al. 2018). All this challenge the management competences and thus, management education, which has been, in spite of the economic shift towards service, grounded on the framework of manufacturing based economy.

In higher education, especially in master's level education the knowledge of the theoretical underpinnings and the operationalisation of theories are learned. This is also required by the EU (for European HEIs) with the standard of EQF that specifies the quality of education. The degree programs focus on explaining the intertwined nature of theory and practise. This lays the foundation for new management competences.

2.1 Management education in higher education institutes

Higher education institutes (HEIs) and business schools and other HEIs aim to educate the next generation of business managers and leaders. HEIs have a long tradition of providing degree programs with slight differences and variations in disciplinary approaches, syllabi, and pedagogical choices. The practice of management education, when degree programs are considered, is heavily relying on Master's Degree in Business Administration (MBA) and/ or master's degree programs in other disciplines such as engineering. MBA programs are criticized for their lack of relevance to practitioners, the values they impart to students, and their teaching methods (e.g. Mintzberg, 2004, Pfeffer & Fong 2004, Bennis & O'Toole 2005, Ghoshal 2005, Dunne and Martin 2006).

In this paper, the theory in management learning and education, is not the chosen perspective. Instead of the basic theory perspective, this paper takes a different view: that of the applied view. The aim of the paper is to contribute to management teaching practice and the curriculum (syllabi) development as well as the curriculum and course delivery. This paper contributes the management education discipline by providing an example of a new theoretical orientation's influence on management education, on both theoretical and application levels. The theoretical perspective comes from the context of management education, i.e. from business research. This theoretical perspective with its operationalization is then linked to the management competencies, on strategic, development, and executional levels.

As this paper choses the theoretical approach on business to be that of service logic, the management education program under study needs to have the same overall logic. Based on the review of how service logic, service innovation and design is embedded in education (Ferruzca et al. 2016, 2017), resulted that in higher education, it is less on curriculum level degree programs and focus is on individual courses within the curriculums. Further, the comparability of various degree programs is a challenge because the information is not readily available, consists of various terminology and interpretations, in various formats.

Literature on master's degree curriculums typically highlight one aspect of the business world and is focused on one subject courses in MBA curricula such as strategic management courses (Albert & Grzeda 2015) and strategic communication (Rennie et al. 2018) from the conventional side, whereas recently novel concepts are brought to curriculum such as design thinking (Schmacher and Mayer 2018). The questions of how design thinking changes management education has been proposed (Dunne and Martin 2006) and the need for design thinking in business schools (Glen et al. 2014) has been brought up suggesting the approach the management education from the design logic point of view, and not from the business logic point of view. The traditional development methods were not focused on these so new ways to develop are called for. The distinction can be understood also as turning away from a traditional decision-making attitude towards more onto a design-creating attitude (Schmacher & Meyer 2018).

However, we are focusing on "the business degrees in business schools". Thus, this paper proposes design thinking influenced service design thinking and service design as part of the creative mindset needed in business management, but highlights the role of much more extensive change of paradigm as the reason why competences change; namely the service logic in business. This is because the application of the novel concepts of design thinking and / or service logic may be impossible or partial at the best if the organization existence is based on the industrial logic. In order to discuss future management competences and the future master's degree programs to address these competencies, the understanding of the paradigm change from the industrial logic to the service logic and further towards creativity enhancements via service design thinking and service design warrants a complex change in the mindset.

The 21st century skills and competences are defined as skills and competencies, which benefit from the emerging new forms of socialization and to contribute actively to economic development under a system where the main asset is knowledge (Ananiadou & Claro 2009). These are discussed in three dimensions: information, communication and ethics and social impact. Further grouped as 1) learning

and innovation skills, 2) digital literacy skills, and 3) career and life skills. For the purpose of this paper the first group of learning and innovation skills are of importance. They include the critical thinking and problem solving, communications and collaboration, creativity and innovation.

In higher education, especially in master's level education the knowledge of the theoretical underpinnings and the operationalisation of theories are learned. The degree programs focus on explaining the intertwined nature of theory and practise. This lays the foundation for new competences.

Leading the service business and incorporate service design calls for the new management competences that need to intertwine both service logics and service design. Leading service design, e.g. managing the service development in any organizations requires understanding the development and strategy level competencies. These stem for the theoretical underpinnings. The pure executional level expertise on carrying out service design projects is not comprehensive enough. Managers need wider knowledge on how the individual choices on service design tools, templates, methods and processes affect the business. To lead service design the manager needs to understand the business opportunities, the strategic vision of the organization, financial outcomes, to name a few.

2.2 Service design approach

Service design aims at creating services that are both useful, usable and desirable from the customer perspective, and simultaneously efficient, effective and different from the provider perspective. Can be characterized as a human-centered and iterative approach that allows customers to co-create valuable service experiences with service provider through a creative design process (Patrício et al. 2013). The service design approach provides process models and a practical set of methods and tools to involve customers in the service innovation process, explore customers' world, and, eventually, design for improved customer experiences. The focus of service design has shifted towards more creative approaches which seek to understand people's subjective values, attitudes and desires (Luojus & Harviainen 2016).

Stickdorn et al. (2018) discuss the six key principles of service design: It is **human-centered** and **collaborative** with customers and other stakeholders and within the interdisciplinary design team. The service is visualized and orchestrated as a **sequence** of interrelated actions**.** Customers' needs should be researched and ideas prototyped, as well as intangible values should be evidenced **in reality**. Services should sustainably address the needs of all stakeholders through the entire service and **holistic** across the business. As such, the service design processes are **iterative**. Service design "*is human-centered, collaborative, interdisciplinary, iterative approach which uses research, prototyping, and a set of easily understood activities and visualization tools to create and orchestrate experiences that meet the needs of the business, the user, and other stakeholders."* (Stickdorn et al. 2018, p. 27)

There are several service design process models available usually consisting of three or even up to seven stages (e.g. The 3I model by IDEO 2001, Moritz 2005, Design Council 2007, Liedtka & Ogilvie 2011, Tschimmel 2012, Stickdorn et al. 2018), but fundamentally all the processes share the same logic and mindset (Tschimmel 2012, Luojus et al. 2018). Service design processes are usually presented to have a clear and chronological structure, but in reality the service design processes are nonlinear and iterative by nature (Stickdorn & Schneider 2011, Stickdorn et al. 2018, Tschimmel (2012). Each service design process model is complementary to existing design research methods and provides a service design thinking perspective that can be integrated into different design processes in a way that is appropriate to the particular context.

Sleeswijk et al. (2005) categorize design research methods according to the focus of the method: (1) say/think, (2) do/use and (3) know/feel/dream. "Say/think" relates to interviews and to explicit knowledge, whereas "do/use" relates to observing the situation of usage. "Know/feel/dream" refers to physical or visual aids to allow people to visualize and describe their expectations and dreams, or tacit knowledge (Fig. 1.) (Sleeswijk et al. 2005). The service design approach prefers creative research methods because research data gathered by these methods help to understand people's subjective values, attitudes and desires, as well as provide stimuli that allow ideas and insights to be created (Mattelmäki 2006).

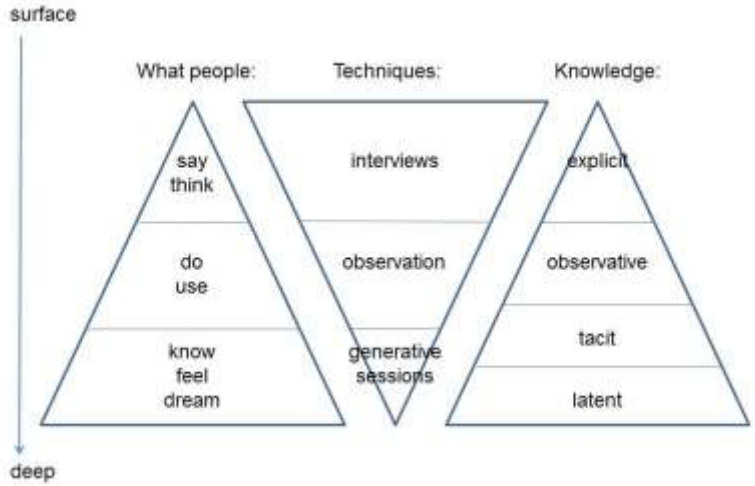

Figure 1. Division of user research methods by Sleeswijk et al. (2005).

2.3 Management competencies in the era of service logic

This chapter aims to outline the new management and leadership competencies based on the intertwined management competences of service logic as the theoretical approach, which will be operationalized thru service design approach. This operationalization requires a study of the compatibility of the key managerial insights from service logic by Greere et al. (2016) and the basic ideas of service design approach.

Greere et al. (2016) presented the five key managerial insights from service-dominant logic. (1) **A service ecosystem perspective enables managers to view their organization in a broader and more enlightening perspective.** A service ecosystem perspective helps business leaders and managers to identify all stakeholder groups (including e.g. employees and suppliers) who are affected by the organization and to recognize that organizational performance is too often a self-centric concept that captures performance in the eyes of the organization. The organization be should be considered from the perspective of the larger network of stakeholders that make up the ecosystem in which the organization is only one node connected by relationships. This broader view enables leaders and managers to see how relevant other stakeholders who are affected by the organization define and perceive its performance and how it delivers on its value proposition and creates mutual value for them. (Greere et al. 2016). Service ecosystem perspective can enhance identifying collaborative advantage. According to the principles of service design “the experience of all the people affected by the service” should be considered and “stakeholders of various backgrounds and functions should be actively engaged to the service design process” (Stickdorn et al. 2018). Thus, service design takes into account not only the customer, but optimally as many key actors and stakeholders in the service ecosystem as possible (Luojus & Harviainen 2016).

(2) **Service and service exchange is transcending and can be used as a unifying and integrative way to manage intra and inter-organizationally.** Service-dominant logic (S-D logic) regards the notion of ‘‘service’’ as a transcending concept; according to Greere et al. (2016) it is the application of resources (e.g., knowledge and skills) for the benefit of another. Organizations that are managed with a service perspective view their customers as active participants in value creation. They consider essential to understand the motivation of users and other stakeholders. Thus, listening to them, understanding their problem-solving needs and desires, respecting their interests, and utilizing their talents are important for these organizations. In addition S-D logic sees service as the fundamental basis of exchange. The principles of service design highlights that customers’ needs should be researched and service ideas prototyped, as well as intangible values evidenced in reality. (Greere et al. 2016). In other words, service provider have to be familiar with the everyday life context of the customers. Service design approach and creative research methods have been widely disseminated and rapidly adapted among practitioners in service business, because the service design methods have proven to be very powerful in bringing customers and their everyday living context into the focus of service development process. Diverse and rich research data gathered by collaborative and creative service design methods (e.g. ethnographic methods) help leaders and managers to

understand their customers, employees and other stakeholders better. This understanding helps them to improve their service business as well as organizational transformations by sensing, seizing and shaping new business opportunities and organizational culture.

(3) **A service perspective can enhance value co-creation, including coproduction possibilities**. From an S-D logic perspective the customer is always a co-creator of value and organization's output becomes an input in a customer's own value co-creation processes. S-D logic perspective enables (1) coproduction in which an customer or other stakeholder is actively involved in developing some of a service offering and (2) collaborative innovation, in which customers and other stakeholder may be involved in various phases of innovation process. This kind of transmission of knowledge provides another perspective on value co-creation, as well as interdependency. Co-creation of value makes the tacit or sticky knowledge of customers and other stakeholders visible. Tacit knowledge could provide the basis for the organization's strategic advantage, because it usually cannot be transferred to other organizations as such. (Greere et al. 2016). "As a human-centered, collaborative, interdisciplinary, iterative approach which uses research, prototyping and visualization tools to create and orchestrate experiences that meet the needs of business, the user and other stakeholders" (Stickdorn et al. 2018, p. 27), service design provides method and tools for co-creation and thus, strategic advantage for the organization that are managed with a service design perspective.

(4) **A service perspective is conducive to and fostering of innovation**. Despite the fact that innovation is currently seen more like a social process involving individuals from within and across organizations, there are still several recognized obstacles to knowledge sharing, such as structural barriers, communication structure, physical distance, and managerial biases. S-D logic emphasis that innovations arises from combining and recombining resources in unique and novel ways and involves some form of service. A key role of management is finding ways to integrate resources and capitalize on this unbounded innovation frontier, which advances the human condition and also the performance of the organization. With service-ecosystem lens, S-D logic sets welcomes more open innovation. (Greere et al. 2016). Service design is not only a practice for innovating services. Instead, it can be seen as a new innovation process that grows into a powerful transformative force for organizational transformation. (Kurtmollaiev et al. 2018).

(5) **A service perspective moves the organization away from an emphasis on competitive advantage and toward a focus on strategic advantage and emergent strategy.** With the service perspective: (1) strategy becomes more emergent, incremental, and demand-oriented, (2) strategy emerges as the organization uses its dynamic resources, draws upon its relationships to other organizations, and develops processes and capabilities to re-shape and sometimes develop new value propositions, and (3) strategic planning is seen iterative as the organization takes actions to create markets and the future. Service perspective regards management to deeply understand institutions, relationships, and the context(s) that the organization operates within. In addition, *"an understanding is required of how customers co-create value and how the firm can make value propositions that engage customers, employees, suppliers and other stakeholders in a collaborative role to integrate the resources for mutual value creation."* (Greere et al. 2016, p. 8). Polaine et al. (2013) notes that the service design has impact also on strategic level and not only on executional level. According to Kurtmollaiev et al. (2018, p. 70) service design capability "*emerges in the course of institutional work from a combination of change routines (e.g., the formal stage-gate innovation process), routine changes (e.g., launch of a new strategy), and changes in routines (e.g., involvement of customers in the innovation process)".*

Service design is a multi-disciplinary field of study that integrates methods and tools from several academic disciplines, such service science, marketing management, design disciplines (e.g. industrial design, interaction design, graphic design), phycology, operations management, and information technology (e.g. Wetter-Edman 2014, Ostrom et al. 2015). The service design approach favours innovative research methods because typically a rich research data is gathered by these methods in empathic and human-centric manner to provide stimuli that allow ideas and insights to be created and opportunities to share them (Mattelmäki 2006). These methods are meant to support both the designers and the users in their creativity and interpretations during the service design process. Yet, scalability of collecting and analysing rich data raises questions of practicalities, sustainability, and viabilities. Furthermore, the justification for this needs to be grounded in business strategies and development principles.

Since service design is an emerging and multi-disciplinary discipline, several of its basic concepts are still fairly superficially defined and the theoretical framework is fragmented. Thus, anchoring to already existing solid discipline is not only useful but also appropriate. In addition, service design approach

would benefit expanding its perspective to the wholeness of the service business. On the other hand, as shown above service logic as theoretical framework can be expanded and deepened by operationalizing thru service design approach based on anticipation, creative and experimental thinking, and providing methods and tools for co-creation and innovation. The objective of this paradigm shift taking currently place is to integrate business and design fields.

The main argument of the paper is that service logics and service design intertwine in the new management competences. Thus, in order to solidify the theoretical foundation and to have impact on business management, service design approach needs to be anchored to one of the conventional academic business disciplines. Next figure (Fig. 2.) summarizes the discussed the new management and leadership competencies based on the intertwined management competences of service logics as theoretical approach which will be operationalized thru service design approach.

Figure 2. The new management and leadership competencies based on the intertwined management competences on service logics and service design approach.

Depicted from the figure above, service design approach hardly reaches the strategic level of the management. Here, the strengths of service logic lens guides the work.

2.4 Service logic viewpoints to consider

The modern higher education aims to educate future multicompetent professionals. As one customer of the higher education is the society in large, the guidelines of European Union for higher education needs to be considered. In higher education in Europe, the European Qualifications Framework (EQF) provides the framework for competence development offered thru the degree programs. In this paper, we focus only on master's level education (EQF7) and discuss managerial competence development with the emerging discipline of service design. Next, a few key points of service logic are considered in the context of higher education development.

First, The EQF provides the framework for competence development offered in the degree programs thru eight reference levels and describes the learning outcomes of those levels. Moreover, according to the Finnish National Qualifications Framework (NQF) the aim of Master's programmes in universities of applied sciences is that a person who has completed the degree has both in-depth knowledge and the theoretical skills required for development of the workplace with demanding expert and managerial duties. Both frameworks, EQF7 and NQF7 highlight the importance of managerial competence.

As a second the customer of the higher education is the employers, i.e. public and private organizations, the focus of the higher education needs to be clarified. To clarify the distinction, the users of the education service are the students. In this study, the master's degree programs educates

future managers for organizations. The aim of the studied degree program is not to educate service designers, but future business professionals for managerial positions. The purpose of the program is to educate leaders for organizations adopting service-driven worldview in business. All this, requires developing the curricula, content and pedagogical methods of master's degree education also in relation to service design. This paper explores opportunities the HEIs have in shaping their management education programs and curricula based on the latest changes in business disciplines. The purpose of this study is to elaborate how these competences are learned during the Master's degree studies at Laurea University of Applied Sciences. The program aims to educate leaders for organizations adopting service-driven worldview in business.

As the third users, are the students of the higher education, the collaboration with students in improving, developing the degree programs and related courses is essential. In this paper, the collaboration with students and gathering of empiria from the students is done in multiple ways as suggested in service design method. This paper is limited to methodology and subject matter.

2.5 The research design

The study was accomplished at Laurea University of Applied Sciences (Laurea). Laurea is a pioneering university in service design education on master's level. Laurea educates future managers in service design from the service marketing perspective. Laurea provides two masters level programs - Service Design Master's degree program and Service Innovation and Design Master's degree program. The clear aim of these degree programs is not to educate service designers, but future business professionals **for managerial positions**. The purpose of the master's degree program is **to educate the leaders** for organizations adopting both the service-driven perspective and service design approach. As such, the program includes some practical education on service design processes, methods and tools, but is focused on understanding the needs required in business management due to the change of the theoretical point of view. The Master's degree program is total of 90 ECTS (with eligibility requirement of Bachelor's degree and a minimum of 3 years of working experience), from which 60 ECTS are individual course work and 30 ECTS is the master thesis project and reporting. The students could have a wide variety in the backgrounds when entering into the degree program. These include: various bachelor level degrees (IT, business and administrative sciences); some may have already master's degree in other discipline; various working experiences in both timewise, careers or industries, and motivations to study master's degree. The degree programs follow the frameworks of EQF7 and NQF7.

The purpose of the study is to rethink management and leadership competences in the era of service logic and to try out how these new competences are learned. The objective of the study is to answer the following questions:

- What would be the new management and leadership competencies based on the intertwined service logics and service design approach?
- What do the master students in service design expect from their studies, how the students evaluate development of their own competences, and how the expectations of master's degree students and the learning outcome requirements i.e. educational competence development requirements (by EQF) differ.
- How does the management competence develop and competence requirements are fulfilled during master's degree program in service design?

The research data was gathered during the multidisciplinary master's degree studies in 2017. This descriptive single case study uses a combination collected data (semi-structured survey), observation, discussions, and content analysis to elaborate expectations and development of management and leadership competences among master's students in service design. The case study research was selected because the study investigates a contemporary phenomenon within its life context and it uses multiple sources of evidence.

The survey data was collected by a questionnaire consisting of multiple-choice and open-ended questions. The survey was created in Finnish language, i.e. the native language of the students. The background information of the student respondents included prior degree, the program identification number, and executed study points (number of credits, ECTS). The questionnaire was answered by 40 Master's degree students in Service Design, of whom 31 had completed less than 60 ETCS (typically 3-4 courses) and 9 students had completed at least 60 ECTS credits. Students were asked to self-evaluate their own service design competence and grade their competence related to the

thematic aspect of service design (grading scale: 0 =no competence – 5 =excellent competence; 1 – poor, 2 - satisfactory, 3 – good, 4 – commendable, 5 - excellent). Note that we did not use Likert-scales in this survey, but the actual grading the students would give to themselves; to self-assess their own competence.

The analysis was executed in Finnish language also, and the findings translated to English (for the benefit of the reader). The media of the survey was in-house digital eform, that allows the responses to be downloaded into excel for further analysis. The response time was not limited. The approximation of time spend on the survey is 30-40 minutes. The students were instructed to respond the survey during their contact day in December 2017. The responses were unidentified, treated as anonymous responses, and the responses were analyzed by using excel.

3 PRELIMINARY FINDINGS

This chapter summarizes the preliminary findings of the exploratory study. Preliminary findings suggest that the management competence develops during higher education slowly and competence requirements are fulfilled only when the master thesis project is accomplished. The findings also indicate that students seem to want to complete the expertise on execution level rather than reaching the managerial levels of development and strategy.

3.1 The new identified management and leadership competencies

Based on literary review and feedback from working life experts this paper proposes that the content of the master's degree program in SD should consists of seven thematic aspects that need be educated interdependently rather than independently. The new management and leadership competencies grounded on the intertwined service logics and service design approach (Table 1.).

Traditional ME elements	**Focus on competences such as**	**Novel ME elements**	**Focus on competences such as**
Management/ Strategic management	theories of strategic management; competitive advantage	Service business strategic management and service marketing	Service logic, service marketing and management
Business modeling and operational modeling	Process and operations management; technology and operations management	New service business model development	Service BM
Financial and management accounting;	ROI, profit and loss, investments; cash flow analysis; financial reporting	Financial and managerial accounting in service business	Service business finances; pricing of service, service investments, cash flow analysis, SD related KPIs
Marketing	Marketing mix; mass markets, segmentation, marketing communication, branding	Service design thinking	Service design thinking, i.e. design thinking addressing especially the service business context; Customer/ user-orientation
Human Resource Management	Legal HRM, competence development; ethics, managing subordinates	SD process management	Organization culture, Employee experience, Service design processes, i.e. iterative and systematic way to manage SD project; Co-creation, i.e.
Organizational behavior	Management and effective leadership; teamwork; culture; managing performance;	Collaboration as a way of working	collaboration, co-working and the leadership and management of those activities
Microeconomics/ macroeconomics or Analytical skills & statistics		Service design methods and tools	Introduction to practically method-driven part of the professional approach

Table 1. The new identified management and leadership competencies based on the intertwined service logics and service design approach.

The table above (Table 1.) illustrates the main mandatory elements of the master's degree program in which the service logic and service design intertwine thru the whole degree. Thus, the master's degree program at Laurea consists of seven interdependent thematic modules:

1. Service business strategic management, i.e. the management of future
2. New service business model development; creative and collaborative worldview
3. Financial and management accounting; i.e. management of profit and losses, management of capital and investments; pricing of service, service investments, costs and profit analyses
4. Service design thinking, i.e. design thinking addressing especially the service business context as the creative approach diminishing the unwarranted decision-making approach
5. Service design processes, i.e. iterative and systematic way to manage SD project
6. Co-creation, i.e. collaboration, co-working and the leadership and management of those activities, and understanding of the joint spheres of operations
7. Service design methods and tools, i.e. practically method-driven part of the professional approach. Here, the analysis of the information gathered requires further attention to reach the EQF7/NQF7 level of education.

3.2 Service design competences identified by the students

The objective of the survey was to get better understanding of students' expectations, to get new insights, and to further develop the master's degree program in service design. In the survey, the students were asked to identify five key competences of service design. They identified altogether nearly 100 competences, from which the top five themes related to designing together, facilitation (of the workshops), customer insights, methods and design thinking. The first analysis of the responses in open-end questions shows the multifaceted competences in the service design (see Fig. 3.). This wordcloud was created based on the survey responses to demonstrate how many issues the master's students (i.e. on class) include in discussion of the key competences in the degree program. Likewise, the distinction of the sizes of the letters approximates the popularity of the topic; the bigger the letter the more it was found in the responses.

Figure 3. Wordcloud of the key service design competences identified by the master's students

The Master's students' expectations for the degree program indicates that the students do not distinguish competences between managerial (EQF7) and expertise (EQF6) levels; skills, capabilities and competences in general. Neither have they divided between theoretical frameworks i.e. service logics based competences from general management competences, or between operational skills and

basic skills. According to the survey results students seem to want to develop their expertise mostly on execution level rather than reaching the levels of development and strategy; needed in managerial positions.

The expectations of master's degree students for service design differ greatly from the learning outcome requirements/ competence development requirements of the European Qualifications Framework and the national qualifications framework. The master's level education (EQF7) offers highly specialized knowledge, including critical awareness of knowledge issues in a field and at the interface between different fields. Further, EQF7 calls for students to learn specialized problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields (European Commission 2018).

3.3 Development of management competences in the master's degree program in SD

The content of the master's degree program in SD in Laurea consists of seven thematic aspects defined by literary review and evaluated together with working life experts: Service design thinking, service design methods and tools, service design process, strategic management, new business model development, co-creation, and management accounting. The survey data was also analyzed in order to understand how the management competence develop and competence requirements are fulfilled during master's degree program in service design. Students were asked to evaluate their own service design competence and grade their competence related to the thematic aspect of service design (grading scale: 0 =no competence – 5 =excellent competence; 1 – poor, 2 - satisfactory, 3 – good, 4 – commendable, 5 - excellent). The respondents are divided into two groups according to the number of credits they have completed: Group A<60 ECTS and Group B>= 60 ECTS.

The following table (Table 2.) depicts the summary of the differences between the groups A and B. Master's degree students self-assessed their own competences in the seven thematic areas that are educated in the degree program. Each theme included few sub-questions. For example, "design thinking" competence is the first study unit provided when the program begins. Therefore, all the respondents should have been executed this study unit, and learned the basics of it. The survey results indicate that there is a difference between the grades in self-assessment; Group A the average is grade 3 and Group B the average grade 4. In group A, many respondents evaluated their design thinking competences poor or satisfactory (grades 1-2). In group B, the deeper analysis reveals that the respondents self-evaluate their competences with grades 3-5, which indicated well-learned competences.

To summarize the survey results, we can conclude that although the more advanced Group B were only slightly confident in their new competencies on average 1 grade (better) compared to the Group A (grades mostly 2-3), with studies of less than 60 ECTS. The biggest difference in competence evaluation was with the theme strategic management competence, in which in the Group A, 45% of the respondents were felt to have good competence to apply the strategic management in own organization. In group B, 78% estimated their competences as commendable. Strategic management refers to the service thinking and application of the service logics as the main theoretical underpinning in business.

To conclude the preliminary findings reveal significant trade-offs in planning and conducting the management education on master's level: The students represent working life and the findings indicate that despite the growing importance of services, the service thinking has not been considered the strategic choice in business. The service logic is less adopted as the guiding strategic principle leading the operational level execution. Thus the students, especially in the beginning of the degree program, perceive service design as end in itself rather than operationalization of service logics as it should be. During the independent thesis work, i.e. carrying out development work, the students internalize the service logics and their implications to development and innovation work.

Competence area	Sub-questions	Group A (<60ECTS) – grade ave.	Group B (>60 ECTS) – grade ave.
Design thinking	Identification of principles in design thinking	3,2	3,9
	Design thinking principles application independently in development work	2,8	3,9
Service Design Process	Can identify alternative process models	2,7	3,7
	Can independently apply appropriate process models in development work	2,4	3,2
	Can assess alternative process models and suitability in dev. work	2,4	3,2
Service Design Methods and Tools	Can introduce several methods and tools	3,0	3,7
	Can independently apply appropriate methods and tools	2,5	3,3
	Can assess alternative methods and tools and suitability in dev. work	2,3	3,3
Co-creation	Can independently carry-out co-creation in workshops	2,9	3,6
	Can plan, lead, collect data and analyze co-creation workshop outcomes	3,0	3,9
	Can assess alternative co-creation methods and tools and suitability in workshop	2,6	3,7
Strategic management	understand the service thinking as strategic management orientation	2,7	3,9
	Can independently apply service thinking as strategic approach	2,4	4,0
	Can assess alternative strategic alternatives in development work	2,3	3,8
New thinking and business model development	Can identify alternative logics and business models	2,8	3,9
	Can compare and assess alternative logics and business models	2,6	3,7
	Can develop organization from service logics perspective	2,2	3,6
Management accounting	Can interpret management accounting information	2,0	3,7
	Can produce financial data for management accounting and development work	1,8	3,2
	Can interpret alternative information and reports for developing organization	2,0	3,3

Table 2. Summary of the Master's Degree students' self-evaluation.

The role of service logic as the theoretical background in education needs to be reinforced, and strengthened in order to students to perceive the unity of service logics and service design. The HEIs has a vital role in educating the management competences. The complexity of service experience co-creation and the insights on the aspects calls for managers to monitor and facilitate interaction with others (Jaakkola et al. 2015).

4 CONCLUSIONS AND DISCUSSION

This paper addresses the management education discipline by providing an example of a new theoretical orientation's influence on management education, on both theoretical and application levels. The theoretical perspective comes from the context of management education, i.e. from business research. This theoretical perspective with its operationalization is then linked to the management competencies, on strategic, development, and executional levels. The ongoing study reported here was a first exploratory attempt to describe the expectations of the master's students in degree programs intertwining service logic and service design. Thus, it is a limited sample.

Some suggestions for further research were detected based on this study. First, how the role of digitalization and technology advances the education of managers in service design competencies. Second, the role of visualization in education in contrast to the written argumentation. Thirdly, the metrics related to service design productivity from the business management point of view. The different educational backgrounds of students will have an impact on learning and competence development, which requires further research. To conclude, we envision more multidisciplinary service-driven degree programs in future.

4.1 Theoretical contributions

The purpose of the exploratory study was to rethink management and leadership competences in the era of service logics and to try out how these new competences are learned. Regardless of Kurtmollaiev et al (2018), there seems to be scarcity in literature in understanding the impacts of the service marketing and application of service design on organizations. This paper is cautious about the suggestion (Patrício & Fisk 2012) that the service design formulates the center for management education as such. Instead, the new management competences can intertwine service logics and service design. This paper proposes that the management education uses the theoretical background from marketing, and especially the service marketing as explanatory power and the strategic level of discussion.

Little attention is paid in literature to the influence of service logics into management competences. The main contribution of this paper is to advance the intertwined management competences of service logics as theoretical approach, which can be operationalized thru service design methodology. In addition, the paper increases knowledge of the management education in modern service society. The conceptual development work presented in this paper is the first step to open up and advance the discussion of the management education in modern service society.

4.2 Managerial implications

Modern societies are currently undergoing several big changes that poses challenges and opportunities for the future. Education, competencies, and preparedness of the forthcoming professionals are essential to cope within the future service society. The role of higher education is pivotal in transforming the society and educating to meet the needs of the future working life. The new management and leadership competencies plays significant role in higher education for the 21st century.

This paper contributes to the domain of management education by identified new management competences of service logics and service design and providing greater insights of students' expectations and interests to service design. The most essential finding is that the management competence develops very slowly and competence requirements are fulfilled only when the master thesis project is accomplished.

The preliminary findings have several important implications for HEIs, curricula designers, teachers, and people seeking for the management education options. The mapping of roles, responsibilities, and competences is an important guideline for the educators, working life and master's students. The service logics and service design methods bring customers and other stakeholders into the focus of service development. Managers and leaders need to be able to justify the use of the service logics and service design to improve their service business as well as organizational transformations by sensing, seizing and shaping new business opportunities and organizational culture.

The preliminary findings indicated that the expectations of master's degree students for service design differ significantly from the curriculum and the learning outcome requirements/competence development requirements of the European Qualifications Framework (EQF7). The competence requirements for managers and professional expertise are unfamiliar with many of the degree students. This needs to be noted in teaching, interaction and curriculum communication.

The findings reveal significant expectations for education among the master's students. The new insights for management education include competencies of leading the service design projects in organizations. This requires understanding of strategic approaches, co-creation of value and related development methods: application of service design benefits from the service-driven strategy. Likewise, design thinking needs to be understood. These approaches in and with service business model development capabilities would benefit from service design process application with service design methods and tools, and co-creation procedures, only when the organizational aspects and management accounting issues such as pricing, investment calculations and cost analyses are carried out.

The future service business management professionals will not become service designers or service marketing professionals; they need to have core understanding on both approaches, and master the

fundamental principles and their impact on organization and operations. Thus, the master students, "*who shapes organizations and economic processes*" should be provided with the new management competences based on service logics and service design intertwined.

4.3 Limitations

This descriptive single case study used a combination collected data (semi-structured survey), observation, discussions, and content analysis to elaborate the development of management and leadership competences among master's students in service design and how the expectations of master's degree students and the learning outcome requirements i.e. educational competence development requirements (by EQF) differ. The study reported in this paper was an exploratory attempt to describe the expectations of the master's students in degree programs on service design and is thus a limited sample. Yet, the sample selection was with a one study year, and within one HEI that limits the explanation power of the findings. As the service design gains in popularity, it will be interesting to study other universities that provide education on level EQF7. In future, the number of respondents needs to be higher and the more creative research methods should be considered.

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