Design Thinking for Creating an Increased Value Proposition to Improve Customer Experience

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Abstract. *Purpose of this conceptual study is the identification of design thinking approaches and underlying logic for increasing the value proposition to improve customer experience in today´s dynamic and fast-changing business environment. Method of research based on content analysis of distinctive streams in the literature on design thinking for delivering the increased value proposition. Core elements of design thinking were identified and combined with service-oriented thinking logics aiming at providing superior value proposition and thus to improve customer experience. Furthermore, the article elaborates on the delimitation of Design thinking from Designerly thinking, and a new model for enhancing customer value propositions, the wheel of Design thinking, was developed based on core elements of Design thinking approaches. This approach has potential to shape and redefine existing markets and to improve adjustment of products and services to dynamic customers´ needs and demands.*

Keywords: *design thinking, designerly thinking, value co-creation, value proposition.*

Abstrak. *Tujuan dari kajian konseptual ini adalah identifikasi pendekatan pemikiran desain dan logika yang mendasarinya untuk meningkatkan proposisi nilai untuk meningkatkan pengalaman pelanggan dalam lingkungan bisnis yang dinamis dan cepat berubah saat ini. Metode penelitian berdasarkan analisis konten dari aliran yang berbeda dalam literatur tentang pemikiran desain untuk memberikan proposisi nilai yang meningkat. Elemen inti dari pemikiran desain diidentifikasi dan dikombinasikan dengan logika pemikiran berorientasi layanan yang bertujuan untuk memberikan proposisi nilai yang unggul dan dengan demikian meningkatkan pengalaman pelanggan. Lebih jauh lagi, artikel ini menguraikan tentang pembatasan pemikiran desain atas pemikiran dirancang, dan model baru untuk meningkatkan proposisi nilai pelanggan, roda pemikiran Desain, dikembangkan berdasarkan elemen inti dari pendekatan pemikiran Desain. Pendekatan ini memiliki potensi untuk membentuk dan mendefinisikan kembali pasar yang ada dan untuk meningkatkan penyesuaian produk dan layanan untuk kebutuhan dan permintaan pelanggan yang dinamis.*

Kata kunci: *pemikiran desain, pemikiran desainer, nilai kreasi bersama, proposisi nilai.*

Introduction

In turbulent and rapidly changing business environments, the importance of value proposition of national and international corporations is continuously increasing. As a consequence, there is a great demand for new thinking modes and methods for the development of innovative value propositions. Design thinking represents a by nature user-centric thinking mode to foster the creation of value propositions. Today, companies experience a need to develop innovative perspectives in order to gain competitive advantages and stay relevant in various fragmented markets in times of impermanency, hyper competition, globalization and fluidity. Dynamic thinking modes such as design thinking are required to create value for customers in order to increase their experience by assuring a continuous adaption of corporate value propositions to the needs and demands of customers (Tuominen and Ascenção, 2016). During the last decade, the application of Design as a strategic tool for business development has become an important topic among scientists and practitioners (Prahalad and Ramaswamy, 2004; O'Dwyer et al., 2009; Johansson-Sköldberg et al., 2013; Gobble, 2014; Geissdoerfer et al., 2016).

The origin of design thinking comes from IDEO, a design company in Palo Alto, California. The concept popularized in academia and practice and gained significant public attention when the Stanford Design Center was founded in 2006 (Geissdoerfer et al., 2016). Gobble (2014) describes design thinking as a multidisciplinary range of frameworks and tools, which reflects its driving concerns with human experiences. According to Johansson-Sköldberg et al. (2013) design thinking is the best way to be creative. For finding innovative solutions to complex problems what is in line with Brown and Katz (2011) who regard it as a human-centered approach which aims at solving problems as it concentrates on the needs and demands of human beings instead of hypothetical market segments as a basis for ideas and inspiration. Martin (2009) sees design thinking as an approach, which balances the quantitative focus of analytical thinking with standardization and consistency without an exclusion of intuitive thinking and creativity. It is an iterative approach that creates and tests multiple solutions to finally come up with the overall best option (Brown and Katz, 2009; Denning, 2013).

The author interprets design thinking as a multidisciplinary approach to innovation that is human-centered. It is based on designers´ thinking modes and methods to match customers´ needs with strategic business development aiming for an increase of value proposition and thus an improved customer experience. It is seen as an emotional, creative alternative that also incorporates analytical modes of reasoning instead of applying solely the traditional logic based ways to think and work. This interpretation is also in line with Brown and Katz, 2009; Rylander, 2009; Kimbell, 2011; Johansson-Sköldberg et al. 2013 and Liedtka, 2015).

However, Kimbell (2011) describes the term design thinking as a concept which is not narrowly defined yet as it is used in a managerial context but also in design theory. This statement also noted by Johansson-Sköldberg et al. (2013). The author agrees that descriptions of design thinking range from a set of cognitive characteristics, to a user-oriented

step by step approach that aims at coming up with solutions to problems which are also caused by ever changing markets. Based on the difficulty to narrowly describe the meaning of design thinking, Carlgren et al. (2016) interpret design thinking as a concept that consists of five core elements which are: user focus, problem framing, visualization, experimentation and diversity.

Table 1. Core Elements of Design Thinking

Elements	Design Thinking
User-centered approach	Empathize with users to understand latent needs by using qualitative, context specific approaches to do user research. Interaction with users in, for example, research, ideation, and idea testing.
Holistic problem framing	Challenge and reframe the initial problem to expand both the problem and solution space, through various synthesis activities that include pattern finding and ideation.
Visualization	Make ideas and insight visual and tangible, to externalize knowledge, communicate and create new ideas, through for example, visual structuring techniques, rough mock-ups and role-play. "Thinking by doing.
Experimentation	Iterative divergent and convergent work style. Prototype quickly and often to learn (simple and rough representation), and test solutions quickly by sharing prototypes with users. Fail often and fail soon. Playfulness and humour.
Diversity	Creation of multidisciplinary teams with a climate where every opinion counts and decisions are taken jointly. Collaboration with external entities and seeking diverse perspectives from a variety of fields. Democratic spirit.

Source: own illustration based on Carlgren et al. (2016, p.346)

This interpretation of design thinking focuses on individuals who actively make use of design thinking and also takes into consideration the context in which it is applied (Carlgren, 2016). Although, many researchers see design thinking as a tool for product innovation, its above-described focus on human experience makes it a valuable concept for service innovation. Service design thinking is an upcoming discipline that is based on traditional design thinking (Gobble, 2014). It is an interdisciplinary and from the industry increasingly considered approach which can be transferred to multiple practices for service innovation (Stickdorn and Schneider, 2010). In parallel to traditional design thinking, it is also suitable for the creation of future scenarios and new concepts (Tuominen and Ascenção, 2016). In the end, one can argue that design thinking or the related concept of service design thinking is also a culture, not only a methodology. However, building up such cultures within organizations often require incremental changes to the entire organization and its employees also on a psychological level (Gobble, 2014).

In addition, one can delimitate designerly thinking from design thinking. Designerly thinking refers to the academic term of professional designers´ competences and skills and also how to interpret this non-verbal competence of designers. According to Johansson-Sköldberg et al. (2013), designerly thinking links theoretical as well as practical design approaches and is academically rooted in the field of design. According to Johansson-Sköldberg et al. (2013) design thinking is the other discourse that is reserved for practices

and competences also, beyond the above mentioned design context, for people without a scholarly background in the field of design. Most of them have an academic background in management disciplines instead. It can therefore be interpreted that design thinking is a way of explaining designers´ methods that are integrated into practical management or academic discourses (Johansson-Sköldberg et al., 2013).

Designerly thinking and design thinking are related discourses as both refer to a design practice that is a basis for generalization while at the same time, it is far from standardization. The designerly discourse is a scholarly discourse whereas design thinking is rather developed for a managerial and business audience (Johansson-Sköldberg et al. 2013). This article contributes to an increase of value proposition to improve customer experience and is therefore positioned in the field of business and management. In general one can say that the management discourse of design thinking is less robust than the discourse of designerly thinking due to the fact that it is much younger than designerly thinking. Nevertheless, the discourse of design thinking has grown rapidly during the last years. It consists of different research streams that are united under one label.

According to Johansson-Sköldberg et al. (2013), management researchers as well as practitioners like the concept of design thinking as it gives a name to something that is strongly needed in management. In the past, this ways of thinking and working were often undervalued as no label was articulated. Industry experts and practitioners also like the approach of design thinking as its normative descriptions were developed and written with industrial leaders and as it is built on a managerial platform. When in the 1970s design management started to emerge, its aim was to help management practitioners and academics to understand the meaning of design and the reasons why it becomes increasingly relevant and popular. Designers talked about design in managerial ways based on the theories of e.g. Porter for the first time (Johansson-Sköldberg et al. 2013).

The discourse of design thinking became a portal for the entire area of design and enabled innovation management to become a vital part of strategic management as an approach to deal with dynamic and complex future realities. As never before, design started to contribute to innovation strategies of corporations and was first mentioned as a strategic tool in 1984 (Kotler and Rath, 1984). As industries experience a need for more strategic innovation IDEO, one of the world´s largest design companies that also cooperates with Stanford University, started to market it as an innovation firm (Stevens and Moultrie, 2011; Johansson-Sköldberg et al. 2013).

Today, thinking about innovation without taking design into consideration seems to be unimaginable. Design thinking was developed in a way that non-designers can also use this design based approach as a source of inspiration, innovation and for strategic decision making (Johansson-Sköldberg et al. 2013). This study is going to propose an identification of design thinking approaches and underlying logic for increasing the value proposition to improve customer experience in today´s dynamic and fast-changing business environment.

Method

The exploratory qualitative study focuses on the application of design thinking to a business environment and is based on content analysis of distinctive streams in literature on design thinking and underlying logics for delivering superior value proposition. Core elements of design thinking, which were described by various authors, were identified and combined with service oriented thinking logics aiming at delivering superior value proposition and thus to increase customer experience. There are a number of further additional definitions and theoretical contributions that describe the underlying thinking logic of delivering increased value proposition such as e.g. value innovation, strategic innovation, strategy innovation, value co-creation, etc.

The scope of this article is limited to an analysis of design thinking and its core elements and how they can be connected to the service oriented thinking logics for improving customer experience. It also elaborates on a delimitation of design thinking from designerly thinking.

Result and Discussion

In the past, the lines between services, products and user environments were static. According to Breschi et al. (2017) these artificial lines are blurring nowadays. Times in which companies were able to rely on superior services or product features and functions come to an end as digitization fosters faster disruptions and innovations as one could think of ten years ago. Businesses experience customers´ increasing need for personalization and immediacy (Breschi et al., 2017). Liedtka (2014) argues that design thinking can be described as a continuous redesigning of businesses based on customer intimacy. To make use of design thinking as a source for sustainable competitive advantage, the following four questions (Figure 1), which refer to different stages of the design thinking process, have to be raised.

Figure 1. The 4 Ws

Source: own illustration based on Liedtka (2014, p.40)

A design thinking process can be visualized by combining these four basic questions. Liedtka (2014) said that the process of innovation has tremendous potential for improvement in many businesses. Research and Development, Marketing and Business Development departments often battle for control and work at cross-purposes with one another. Meeting the desires of customers has become more important than ever before. At the same time, a variety of new unanticipated competitors arise. Companies try to develop new, customer-centric strategies as the speed of innovation and the market dynamics became unpredictable (Breschi et al., 2017).

The approach of design thinking fosters a new way of thinking and acting which prevents departments from battling over control in all kinds of organizations, governments, businesses and social organizations. Besides being an innovation process, design thinking can also foster organic company growth and can be used as a problem solving approach. Organizations use it as a tool for management development and individual skill building. This multifold application of design thinking in business can help any organization to increase its overall performance (Liedtka, 2014). Design tools and service oriented thinking logics such as e.g. a job-to-be-done analysis or co-creation approaches with customers, help companies to reframe their perspectives and come up with fresh and new innovative ideas and solutions. As management literature indicates that success is often a result of team spirit and effort, design thinking approaches help teams to co-create a new future. Liedtka (2014) also argues that business success increasingly depends on the ability to focus attention on aspects that really matter to the customers for whom companies create value.

Figure 2. The wheel of design to create increased customer experiences
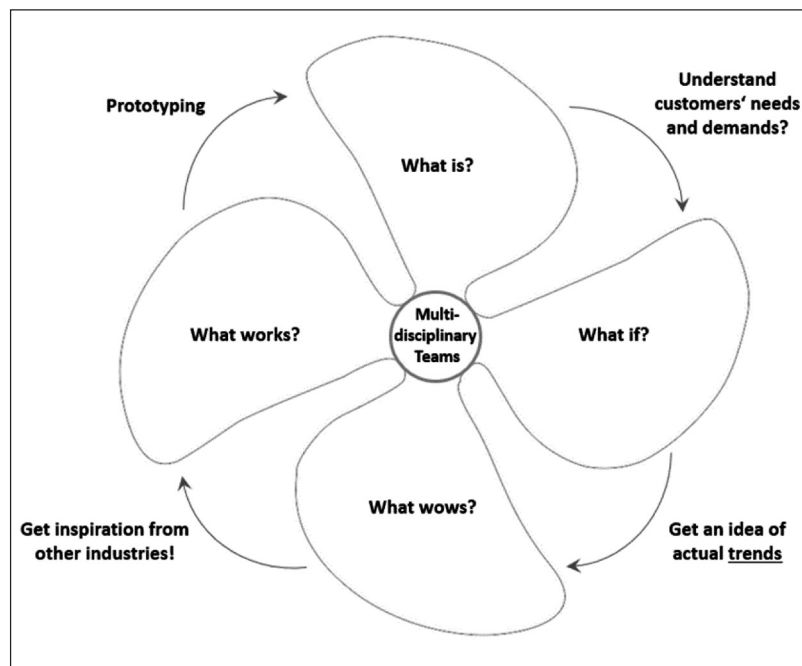
Source: own illustration

As companies tend to turn to design-led strategies, Breschi et al. (2017) identified four principles (Figure 2) to create design-led customer experiences. *Firstly,* the customers´ dynamic needs have to be continuously analyzed. A design-led innovation often starts from a people perspective and analyzes the key aspects of customers´ experiences to get familiar with the key pains and gains of customers (Breschi et al., 2017). This approach is also in line with the service oriented JTBD (job-to-be-done) logic presented by Kleber and Volkova (2017). The image of the product or service can play an essential role for the decision making process of consumers. *Secondly,* businesses have to draw inspirations from other related or unrelated industries as they can serve as a source of inspiration (Breschi et al., 2017).

Thirdly, trends and new, innovative ideas have to be identified. Also societal shifts, demographical movements, political situations, technological improvements and others can be partly forecasted. Breschi et al. (2017) additionally considers the empowerment of multidisciplinary teams as beneficial for design thinking approaches as they support cross-disciplinary collaboration. As a result, the creation of multilayered experiences is expected.

Lastly, the usage of the technique of prototyping to explore strengths and weaknesses of newly created products and services can help to prevent the companies from expensive pitfalls, while not suppressing the innovation potential of them. The main aim is an agile management of prototypes that incorporates frequent customer feedback while focusing on the development of business value (Breschi et al., 2017).

Combining the four-question approach of design thinking established by Liedtka (2014) with the principles of Breschi et al. (2017), the following model shows the key success factors for creating innovative future products and services, which aim at achieving an increased value proposition and thus to create additional value for companies and customers. As needs and desires of societies are dynamic, businesses continuously require value co-creation and design thinking approaches to identify the changing needs and demands over the next months and years.

One can conclude by saying that various business benefits of design thinking are in line or co-support the benefits of value co-creation with customers to increase value proposition. The design of marketplace experiments with customers or the openness and consideration of teammates´ perspectives of all hierarchical levels within or without the company are inspiring for department heads to envision new future possibilities to create new market spaces instead of fighting competitors in the current market (Blue Ocean Strategy) (Kim and Mauborgne, 2005; Liedtka, 2014).

Highly successful companies have realized the blurring boundaries between services, products and their environments. Today, companies do not compete about the best product or service, they rather strike for the best combination of all elements to gain competitive advantage and to create a superior overall customer experience as today´s customers do not buy pure products or services. They rather buy experiences that are valuable to them (Breschi et al., 2017).

Design thinking and value co-creation processes are interrelated answers to the rising convergence of services, products and environments. As dynamic market environments force businesses of different industries to rethink their products, services and business models, a number of strategic moves of companies have to be discussed and could already be observed, which adjusted their business models, products or services to the needs and demands of its customers or its potential customer segments. These strategic moves are often inspired by design thinking and value co-creation approaches to enhance corporate value propositions.

A day-to-day life example is the smartphone, as the focus of past manufacturers was mainly on additional product functions and features. Today, manufacturers rather emphasize elements such as style or simplicity of usage as customers regard a smartphone as a part of their lifestyle (Breschi, 2017). Toyota applied design thinking to make an analysis of one of its

customer contact centers at the West Coast of the USA. Employees such as software engineers, business executives and internal change agents as well as frontline call representatives were engaged in the design thinking project and redesigned the service center experience from scratch based on the needs and desires of associates and customers (Liedtka, 2014).

SAP, a German owned Multinational Corporation, incorporated design thinking and traditional strategic approaches for their business development strategy. New strategies around the nebulous Web 2.0 concept and new marketing strategies were created. As a consequence, SAP´s value proposition was increased (Liedtka, 2014).

3M used design thinking to reinvent their entire sales process. They decided to equip their sales agents with innovative tools to engage with customers. 3M started to demonstrate the power of their new materials compared to the previously used ones (Liedtka 2014). This example also visualizes an increase of value proposition and thus an enhanced customer experience.

As already mentioned before, design thinking can also be applied for governments or non-profit organizations. The City of Dublin made use of design thinking to increase civic engagement to create ideas on revitalizing urban spaces while saving energy at the same time. As an outcome, the project showed how citizens could help to improve their current living situations while creating additional value for their own future (Liedtka, 2014).

Another industry example is a public Swedish bus company, named Skanetrafiken, which intended to enhance the customer value during bus rides. A customer based end-to-end perspective before, during and after the travel was the basis of the design-thinking project. Multidisciplinary groups, which were supported by companies such as Volvo or Transdev, prototyped a bus with new technologies that should help to increase the overall customer travel experience. Also based on a value co-creation approach with customers, over 40 ideas were developed and prototyped. New design concepts transformed the elderly seating arrangements and made the usage of space more flexible. Other examples are phone chargers, an integrated space divider that also includes cup holders, additional shelf spaces or a sensor system through which bacteria-wary passengers can send the driver a stop signal without touching the traditional "Stop" button. The concept of Skanetrafiken reinvented the urban travel experience and provided additional value for both, customers and the company (Breschi et al., 2017).

The last industry example of design thinking which needs to be mentioned is the development of IKEA´s new smart home line. IKEA´s designers aimed at the development of smart furniture that enables the vision of a simpler, more human-centered home life. IKEA found out that consumers demanded technology infused furniture, which allows integrated wireless charging of e.g. mobile phones, nowadays. As a consequence, the designers of IKEA aimed to create an in-furniture solution, which makes the traditional charging via cables obsolete. IKEA launched the world´s first line of furniture with integrated wireless charging and brought smartness to peoples´ lives as IKEA´s products were made for accessible to the mass market (Berschi et al., 2017).

Conclusion

The article provides an overview over design thinking models, their core elements and their industry application. It deals with underlying logics for delivering superior value proposition, derived from existing research literature, and thus with the creation of an increased customer experience. The concept of design thinking was explained and the perspectives of different research contributors were highlighted. In addition, the concept of design thinking was delimited from scientific discourses of designerly thinking. Existing design thinking approaches and models were identified, explained and compared. The author pointed out underlying thinking logics for delivering superior value proposition and links between design thinking models and thinking logics were developed.

As a consequence, a new model, "The wheel of design to create increased customer experiences" which incorporates core elements of previously identified models and service oriented thinking logics, was developed aiming to create increased value propositions. As value propositions provide specific advantages and benefits that intend to solve the customers´ problems, the author notes that value propositions are about the needs and demands of the end-customers and their experience. Due to the dynamic nature of customers´ needs and experiences, value propositions need to be continuously reconsidered to achieve superior customer experiences.

Furthermore, the author suggests that design thinking can be interpreted as a key success factor for the creation of an increased value proposition and thus to improve customer experiences while delivering added business value at the same time. The article shows possibilities to increase value proposition and highlights possible links between design thinking models and underlying service oriented thinking logics with a clear focus on achieving superior customer experiences.

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