DESIGN MANAGEMENT IN THE CONTEXT OF SOCIAL RESPONSIBILITY

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Abstract

Purpose. The need for socially responsible solutions has increased noticeably in recent years and Design Management (DM) as a tool to solve them is becoming even more complicated, requiring new competences. Currently DM has been changing its course to designing where the designing process is already used in management and this leads to application of Design Thinking methods that should take into consideration not only economic but also social, environmental and cultural aspects in order to create more socially responsible solutions.

The aim of this research is to ascertain the meaning and characteristics of DM for promoting socially responsible solutions, to take a critical look at DM's development in the context of social responsibility and to develop a new approach in DM that promotes socially responsible solutions.

Main results and findings. Content analysis shows that among the many approaches and definitions of DM, none directly points to the role of DM in ensuring sustainability and social responsibility. There has been a conceptual transition to integrated conceptualization of DM, which allows the theoretical assumptions to move beyond traditional design practices and theories, and there is potential for new DM approaches that promote socially responsible solutions in a more focused manner.

Key contributions. This study provides a deeper understanding of DM, ascertains its meaning and characteristics, and determines gaps between different DM approaches in the context of social responsibility. Based on the literature review, the authors propose a new conceptual framework of DM for promoting socially responsible solutions and make recommendations for further applications in creative industries.

Social implications. This research and approach aim to solve social and environmental issues and improve quality of life by application of more advanced DM approaches.

Keywords: Design Management, Socially Responsible Design Management, Design Thinking

INTRODUCTION

Scientific concerns and relevance of the article. There is growing awareness within many organizations that design is a valuable tool to achieve organizations' strategic goals and objectives. There is also an increasing desire to understand the design tools (the methods and ways of thinking that the design process brings) available and the design planning and implementation processes. More recently, according to Best, design is being valued as an enabler of innovation and collaborative (as well as competitive) advantage. (Best, 2015) On the other hand, the need for socially responsible products and environments has increased noticeably, even though well-established tools have been developed to help designers and architects face environmental or social problems. Moreover, Design Management (DM) methods are becoming even more complicated, which requires new competences of managers and employees, especially when it comes to socially responsible solutions. Current DM approaches do not necessarily include socially responsible aspects in theory and practice. There is a need for more focused DM approaches and methods for social responsibility that will help designers, design managers and their teams to understand its aspects in order to develop more socially responsible and sustainable solutions. But only as a well-managed process can design unleash its full potential and enable businesses to use design for innovation (Knoskova, 2011).

Dealing with a VUCA (volatility, uncertainty, complexity, ambiguity) world and its problems, DM

has been changing its course from designing as managing to managing as designing. In other words, the designing process is already used in management through application of Design Thinking methods. Our previous research shows that most design concepts and approaches solve only some aspects of social issues on a certain level and that there is a need for a new DM approach that will help to solve complicated issues by taking into consideration all four dimensions – economic, environmental, social and cultural – and will allow architects and designers to use and combine them effectively in order to create more socially responsible solutions. From the authors' point of view, in order to link DM with socially responsible solutions, the first step is to understand the meaning, characteristics, approaches and development of DM, find the gaps within DM theoretical approaches and determine whether or how they are or might be related to social responsibility. This requires more in-depth research of DM approaches and how they might be combined to ensure socially responsible solutions.

The subject of this research is Design Management.

The aim of this research is to ascertain the meaning and characteristics of DM in the context of social responsibility and to take a critical look at DM, which has different meanings, purposes and approaches depending on the context and origin, and how it is linked to social responsibility by finding gaps and room for improvement in order to develop a conceptual framework for DM for promoting socially responsible solutions.

The novelty of this research is that it ascertains the meaning and characteristics of DM, DM approaches and growth models, its development and the latest research in the context of social responsibility. The authors propose a new approach and conceptual framework for DM in order to promote socially responsible solutions called Socially Responsible Design Management (SRDM).

Relevance. The need for socially responsible products and environments has increased noticeably in recent years and DM for socially responsible solutions is becoming more and more complicated, requiring new management competence. In this research the authors set the context of DM for promoting socially responsible solutions and propose a new approach that supports it.

The research methodology for this research is content analysis of existing scientific literature on DM and abstract modelling and synthesis.

Current level of research. This literature review is the first step in the research of Design Management for promoting socially responsible solutions in order to create a conceptual framework and approach for further research.

1.   THEORETICAL FRAMEWORK OF THE RESEARCH

This research is divided into two main parts:

The first section of the research ascertains the meaning and characteristics of DM, DM approaches and growth models, its development and current research in the context of social responsibility.

The first part is divided into three sub-sections. The first sub-section sets the context of social responsibility in DM based on the concepts of social responsibility and sustainability and the origins and basic characteristics of DM. It examines and analyzes different DM approaches and their meanings depending on the context and time they were created and developed. Theories of DM are based on research in design science and management. The second sub-section is devoted to Design Management Growth (or Maturity) Models and design integration and different approaches. Based on conceptual analyses, the authors have created a new conceptual model that reveals dimensions of DM integration in business in the context of social responsibility. The third sub-section contains research and analysis of the development of DM and current research and practice based on the latest research on DM.

In the second section the authors propose a new DM approach for promoting socially responsible solutions based on previous research.

This research is based on previous research in the DM field and examines the latest ideas, streams and research found in the literature. The authors' approach is to look at this research in the context of social responsibility.

2.   RESEARCH METHODOLOGY

In this literature review the **research method** is content analysis of scientific literature on DM that supports socially responsible solutions, abstract modelling and synthesis. This is the first step for the present research and aims to create the conceptual baseline of DM for further research.

Questions in this research. The authors started this research by posing the following questions:

What is the meaning of DM? What are characteristics of DM? What is social responsibility? Are they linked and, if so, how? Is there evidence that different DM approaches promote socially responsible solutions?

To answer these questions, the authors used the following resources in order to find appropriate research papers. The **sources of information** for this research are scientific journals, academic books and resources from DMI (Design Management Institute). Findings from the following databases are used – EBSCO, JSTOR, Science Direct and professional DM resources. Scientific literature was collected based on the context and content depending on the relevancy for this research.

The keywords used in databases for this research are: design management, social responsibility.

Based on the studies found, the authors developed a structure and analysis of the research depending on the context and relevancy. All the models are based on abstract modelling and synthesis.

Research limitations. The following limitations are set for this research subject: (1) This research only analyses DM approaches and only uses the scientific literature that is available to the authors in scientific literature databases. (2) DM has several meanings and information is widely dispersed in the literature; some interesting publications were found indirectly. Therefore, not all possibilities were covered, and this research can be considered as an in-depth exploratory study. (3) The DM approaches explored are limited by relevancy and deal with socially responsible solutions. (4) Only DM approaches that might be relevant to the design and architecture industries are analysed. (5) Another potential limitation was the subjectivity in the analysis of DM. The presented conceptual framework does not intend to cover all of the depth and richness of approaches used in the publications, and a more detailed content analysis is underway.

3. THE MEANING AND CHARACTERISTICS OF DM IN THE CONTEXT OF SOCIAL RESPONSIBILITY

In order to link socially responsible solutions with DM, from the authors' point of view it is necessary to outline their approach and what is understood by social responsibility as well as what the meanings and characteristics of DM are.

Being socially responsible means that people and organizations must behave ethically and with sensitivity toward social, cultural, economic and environmental issues not only in the short term, but also from a long-term perspective. Like social responsibility, sustainability can be categorized into three main dimensions: environmental, economic and social, including culture. The World Commission on Environment and Development (1987) describes sustainable design as the guiding concept to create a built environment that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (Kadir and Jamaludin, 2013). As there are so many interpretations and meanings of sustainability, in this research the authors will use social responsibility that also addresses the cultural dimension, which is important in the context of architecture and design. In this context, socially responsible solutions are solutions that deal with environmental, economic, social and/or cultural dimensions.

The term 'Design Management' or DM was introduced in the United Kingdom by The Royal Society of Arts in and following the year the first book on Design Management was published by Michael Farr. Although the term has been around for 50 years and Design Management as a field of research has grown stronger, it is still in a state of emergence (Erichsen and Christensen, 2013). However, there is no single universally agreed on definition of the term 'Design Management', just as there is no single agreed on definition of 'design'. (Best, 2015)

When looking at the nature of 'design', the word itself is both a noun (an outcome), and a verb (an activity). It is the outcome of a design project that can be seen in products, services, interiors, buildings and digital media. The management of these design projects is only one aspect of Design Management. (Best, 2015) There is also the activity of designing as a people-centred, problem-solving process, which also needs to be managed and therefore is another facet of Design Management. (Best, 2015)

In this context and from the authors' perspective **DM for promoting socially responsible solutions is DM that deals with all dimensions of social responsibility – environmental, economic, social and cultural.**

Over time, different approaches and definitions of DM have been created and developed. DM has been described from different perspectives such as definitions and goals, organizational place and level,

people deploying design, their management and leadership responsibilities, or their tasks. DM has been viewed as a process from the analysis of customer needs all the way to the launch of new products or services; it has also been conceptualized as a coordinator between functions and departments and an integrator of stakeholders. (Acklin, 2013) DM is a developing body of theory that has its roots in marketing, sociology, psychology and engineering literatures. (Vazquez and Bruce, 2002)

The authors have created a brief overview of DM characteristics found in the literature and arranged them according to the time they were posited:

According to Gorb (1976), "Design Management is the effective deployment by line managers of the design resources available to an organization in the pursuance of its corporate objectives (1990) (Best, 2015). It is therefore directly concerned with the organizational place of design, with the identification with specific design disciplines which are relevant to the resolution of key management issues, and with the training of managers to use design effectively." "Design Management primarily concentrates on allocating all available design resources to businesses to achieve their strategic objectives. This discipline oversees and directs a business's creativity and manages the business itself in accordance to their design principles. Therefore, DM has got a design educating role by communicating the value of design and integrating it into the business strategy but also a managerial task by allocating necessary resources to design and managing the design process." (cited in Mozota, 2003) (HESSELMANN et al., 2012)

Hollins describes DM as "the organization of the processes for developing new products and services" (2002) (Best, 2015). This shows that design roles have been described from different perspectives: from the manager's point of view and design management as a process.

Brigitte Borja de Mozota has stated that "Design Management has two objectives: to train partners / managers and designers and to develop methods of integrating design into the corporate environment" (2003). (Mozota, 2003) (HESSELMANN et al., 2012).

Topalian has stated that within an organization, DM consists of managing all aspects of design at two different levels: the corporate level and the project level. Topalian also believes that "Design Management development needs to broaden the participants' experience of design problems and the range of project and corporate circumstances within which they have to be solved" (2003). (Best, 2015)

For Thackara, "Design Management is a complex and multi-faceted activity that goes right to the heart of what a company is or does [...] it is not something susceptible to pat formulas, a few bullet points or a manual. Every company's structure and internal culture is different; Design Management is no exception. But the fact that every firm is different does not diminish the importance of managing design tightly and effectively". (Gloppen, 2009)

In the Pratt Institute, DM is defined as the "identification and allocation of creative assets within an organization to create strategic, sustainable advantage". And for McBride from the Pratt Institute, "Design Management is the bridge between design and business" (2006). (Gloppen, 2009)

Kootstra (2006) distinguishes three DM types by organizational function: 1. DM as a line function, 2. DM as a staff function, 3. DM as a support function. (Kootstra, 2009)

Cooper, Junginger, and Lockwood (DMI) describe DM as "the ongoing management – and leadership – of design organizations, design processes, and designed outcomes (which include products, services, communications, environments, and interactions)" (Rachel Cooper, 2009).

For Gloppen, "Design Management is used to describe what in the past was called design project management, while the term design leadership is used to describe a more strategic level related to the vision for how design could be used within an organization to achieve corporate goals" (2009). (Gloppen, 2009)

Turner considers that "DM success in business is not so much about practices, as about attitudes and behavior (2013)". (Best, 2015)

The Design Management Institute (DMI) states that "Design Management encompasses the ongoing processes, business decisions, and strategies that enable innovation and create effectively-designed products, services, communications, environments, and brands that enhance our quality of life and provide organizational success."

From the DMI point of view, on a deeper level, DM seeks to link design, innovation, technology, management and customers to provide distinctive competences across the triple bottom line: economic, social/cultural, and environmental factors. It is the art and science of empowering design to enhance collaboration and synergy between "design" and "business" to improve design effectiveness.

The scope of DM ranges from the tactical management of corporate design functions and design agencies, including design operations, staff, methods and processes, to the strategic advocacy of design across the organization as a key differentiator and driver of organizational success. It includes the use of Design Thinking, or using design processes to solve general business problems. (Design Management Institute (DMI), 2016)

Kathryn Best (2015) states that DM should be managed at three levels, such as Managing the Design Strategy, Managing the Design Process and Managing the Design Implementation. In each of these stages the design manager needs certain knowledge and skills to manage all the processes (Best, 2015).

The literature also outlines the difference between a design manager and a design leader. Cooper and Press describe that being a design manager is about "the response of individuals to the needs of their business and the contribution they can make to enable design to be used effectively" (1995). (Best, 2015) Siegel has stated that "design managers optimize resources to implement programs in the most effective and profitable way; design leaders are concerned with innovation, design, and strategy" (2006).

From the authors' point of view, DM might be considered as a tool, method, system and/or process, it encompasses the ongoing processes, business decisions, and strategies that enable creativity and innovation and create effectively-designed products, services, communications, environments, and brands that enhance quality of life for employees, customers and other stakeholders that are involved to a greater or lesser extent and provide organizational success.

The authors have created a structured overview of literature reviewed in Table 1. The aim of this table is to reveal the essence of what DM is, the main focus and whether within those approaches there is evidence of social responsibility such as the social, cultural and environmental aspects that are particularly emphasized in this research. It also aims to reveal the change of thinking on DM over the last few decades.

According to Table 1, over the last few decades there has been a wide range of focus in Design Management, starting from line management in the1980s, design as a strategic tool, products and services, training methods, design integration, DM as a creative asset allocator, functions, design effectivity and profitability. What is observed in this research is that starting from 2009 DM's focus has changed its course more towards management and leadership, design integration in all aspects, and interdisciplinary collaboration, which are more based on people's values – their attitudes and behaviour. DM seeks to be more integrated and to collaborate with other management disciplines as well as the strategic level of companies. In the past DM was not integrated and was used to deal with select and uncertain projects that covered the first – design project – management level, which was not integrated into higher levels of business management. Currently DM theories focus more on strategic levels and how DM might be integrated into the higher level or strategic level of companies and Design Leadership. The capabilities that DM provides might be considered more as a competitive advantage. Besides, it seeks to link design, innovation, technology, management and customers, which seems to be even more complicated in today's fast-changing business environment. Within the wide scope of DM – from tactical management to strategic management covering design strategy, the design process and design implementation – the latest studies show that DM is a key differentiator and driver of organizational success.

The authors would like to highlight that although there are so many different approaches, definitions and meanings of DM, none of them points directly to the importance of sustainability and social responsibility in delivering DM. Most of the definitions and approaches are based only on the economic interests of the company. As Table 1 shows, there has been a conceptual transition from management of product design to a more integrated conceptualization of DM, and from the authors' point of view, it is even more important to take into consideration social, cultural and environmental aspects in the designing process, and as professionals, creators and advisors, designers should be aware of those aspects and how to deal with them in order to create and implement sustainable, socially responsible products, services and systems more effectively. Besides, recent DM approaches are very dependent on the strategies of the companies they are developed for and integrated into. This means that it is crucial for businesses to understand how important social responsibility is, what benefits it provides for the company and what the competitive advantage of being socially responsible is. The Design Management Institute has distinguished social and cultural factors in their DM approach in order to provide a competitive advantage, which means that recently DM has been facing more social and sustainable

issues. This study shows that at the moment DM still does not pay enough attention to socially responsible aspects and there is potential for a new DM approach that promotes socially responsible solutions in a much clearer and more focused manner.

Table1

Meanings and approaches for Design Management

Author	Essence of Design Management	Year	Focus	Dimensions: Economic, Social, Cultural and/or Environmental
Peter Gorb	Effective deployment	1976	Line management	Economic
Peter Gorb	Allocates design resources Oversees and directs business creativity Manages the business Design education role Design integration into the business strategy Allocates necessary resources Manages the design process	Cited in Mozota, 2003	Design as a strategic tool, design principles and design process integration	Economic *Other dimensions depend on the company's interests*
Cooper and Press	Response to the needs of business Enable design to be used effectively	1995	Effectivity	Economic
Hollins	Organization of the processes Develop new products and services	2002	Products and services	Economic
Borja de Mozota	Train partners / managers and designers Develop methods of integrating design into the corporate environment	2003	Trainings, methods of integration	Economic *Other dimensions depend on the company's interests*
Topalian	Manage all aspects of design at two different levels: the corporate level and the project level	2003	DM levels	Economic
John Thackara	Complex activity Multi-faceted activity		Design integration	Economic
Pratt Institute	Identify and allocate creative assets create a strategic, sustainable advantage	2006	Creative asset allocation, strategic advantage	Not mentioned
Mary McBride (Pratt Institute)	Bridge between design and business	2006	Design and business collaboration	
Rita Sue Siegel	Optimize resources Implement programmes in the most effective and profitable way Concern with innovation, design, and strategy	2006	Design effectivity and profitability	Economic
Kootstra	Line function Staff function Support function	2006	DM functions	Economic
Rachel Cooper, Sabine	Ongoing management and leadership of: Design organizations	2009	Management and leadership, design integration	Economic *Other dimensions depend on the*

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Junginger, Thomas Lockwood (DMI)	Design processes Designed outcomes			*company's interests*
Judith Gloppen	DM past – design project management level Design Leadership (DL) – strategic level related to the vision	2009	Management and leadership	Economic *Other dimensions depend on the company's interests*
Raymond Turner	DM success – attitudes and behaviour	2013	Values - attitudes and behaviour	Economic *Other dimensions depend on the company's interests*
Design Management Institute (DMI)	Encompasses ongoing processes, business decisions, strategies Enables innovation and creates effectively, enhances our quality of life and provides organizational success Seeks to link design, innovation, technology, management and customers Provides a competitive advantage across the economic, social/cultural, and environmental factors Empowers design to enhance collaboration and synergy between "design" and "business" to improve design effectiveness The scope of DM: from the tactical management to the stategic advocacy A key differentiator and driver of organizational success Includes the use of design thinking	2015	Design integration in all aspects, interdisciplinary collaboration, design thinking	Economic Social Cultural Environmental *depends on the company's interests*
Kathryn Best	Manage three levels: Design Strategy Design Process Design Implementation	2015	Strategy, Process, Implementation	Economic

Source: Created by the authors

4. DESIGN MANAGEMENT GROWTH (OR MATURITY) MODELS AND DESIGN INTEGRATION

Based on the conclusions that were made in previous section, i.e. that DM tends to be more integrated and current DM theories focus more on strategic levels and how DM might be integrated into the higher level or strategic level of the company, from the authors' point of view it is necessary to examine the latest DM growth models or maturity models in design integration and how they are related to the four dimensions of social responsibility.

This research shows that there is a wide range of maturity and growth models in the literature as well as different ways to look at DM. Two of the most recently used design integration models are the Design Management Staircase Model and the Danish Design Ladder.

Research from the Danish Design Centre (DDC) led to the "Danish Design Ladder", which shows

how companies apply design in differing depths: 1. Non-design, 2. Design as form-giving, 3. Design as a process, 4. Design as strategy (Danish Design Centre (DDC), 2016).

According to Kootstra (Kootstra, 2009), the Design Management Staircase Model is based on a method comparable to the Design Ladder (Ramlau U.H., 2004) of the Danish Design Centre. The Four Levels of the Design Management Staircase Model are as follows: 1. No Design Management, 2. DM as a Project, 3. DM as a Function, 4. DM as a Culture.

In addition, like the management of strategy, design can be managed on three levels: 1. strategic (corporate level or enterprise-wide), 2. tactical (business level or individual business units), 3. operational (individual project level). Or, according to S. Junginger's work, design might be a driver depending on the purpose of design: 1. As a tactical driver (Aesthetics / Function), 2. As an organizational driver (Connector, Integrator), 3. As a strategic driver (Business Models / Markets). (Westcott et al., 2013)

Based on these approaches and models, the authors have created a conceptual model: Dimensions of DM integration in business in the context of social responsibility (Figure 1).

This model states that design integration into the company starts at the product level; the second step is the service level, continuing on to the organization level and finally the organization environment and infrastructure. The wider the integration, the wider the impact of design in a company. From the authors' point of view, in order to create socially responsible solutions, Design Management should not only take into consideration the level of integration but also cover all four dimensions of social responsibility – economic, social, environmental and cultural. This is why the authors offer to look at DM through each of these four dimensions and to cover them as well. From the authors' perspective, the more widely these socially responsible solutions are integrated into the company, the more positive the impact is on society. As we can see from the literature, these positive changes might be achievable and determined by using several DM growth and maturity models, but **our research indicates that none of these models of design integration includes all the dimensions of social responsibility in their evaluation of design integration.** From the authors' perspective DM should be balanced and should consider this balance between all of these dimensions in DM processes in order to create and implement socially responsible solutions.
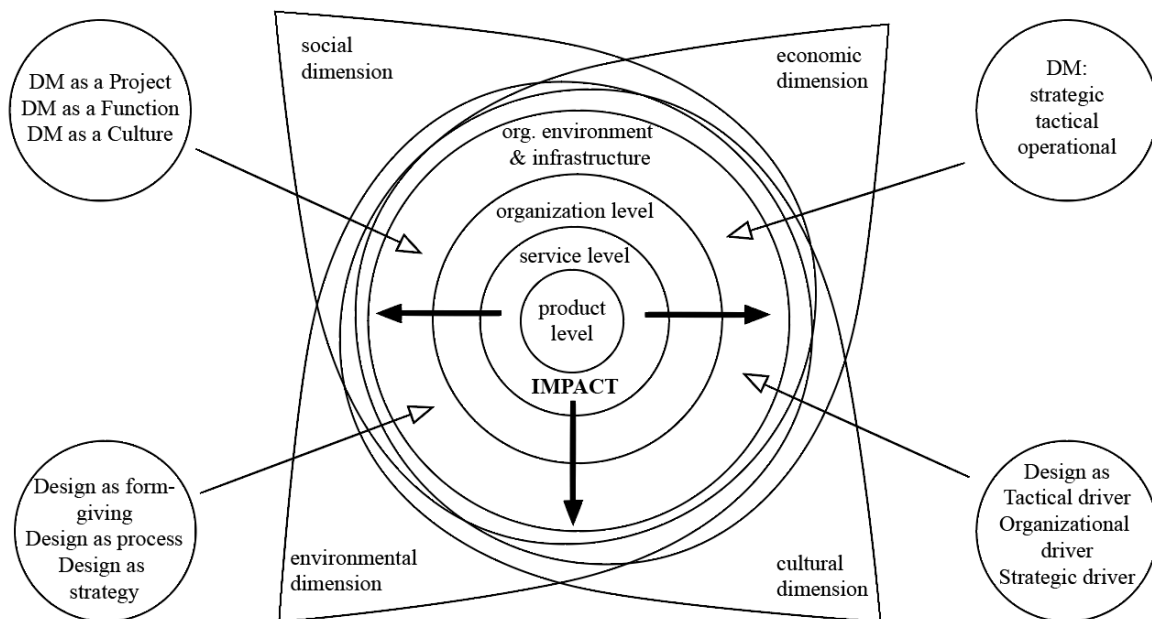
Figure 1. Dimensions of DM integration in business in the context of social responsibility
Source: Created by the authors.

5. THE DEVELOPMENT OF DESIGN MANAGEMENT AND CURRENT RESEARCH AND PRACTICE

In order to determine the development of DM, look at current research and practice and outline the possible future of DM in the context of social responsibility, this research continues with analysis of the latest studies in this field.

Erichsen and Christensen (2013) created a model illustrating the development in concepts in the primary journals for the DM research field in the period of 2000–2010. They identified four changes in the development of the DM research field:

1. Value creation changes from specific design disciplines to a generic and integrative focus on design, meaning that the different domains of design are seen in a more coherent perspective.

2. Value creation in DM moves from being based on borrowed theoretical concepts to being a more autonomous theory capable of generating concepts and research questions in its own right and further seems to have the potential to generate conceptual value for the field.

3. Value creation for business has shown remarkable changes from a sole focus on how to manage design processes to a focus on the value added of design thinking in an era of contextual turmoil. The term 'design thinking' has been linked to such issues as design of the business model and the overarching value of managing for integrated design.

4. The value creation inside vs. outside the organizational boundary has changed over the span of years, reflecting a more systemic perspective on the role of design (Erichsen and Christensen, 2013).
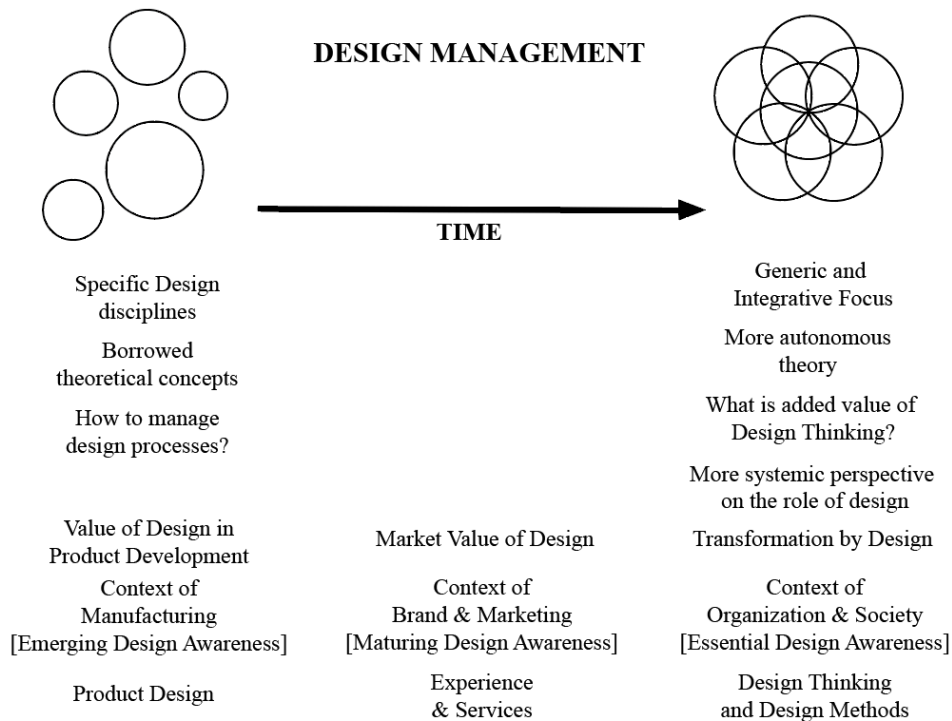
Fundamentally, they found a major transition in the focus – from costs and prices in the early years to innovation and business development in the later years of the study. They also found a conceptual transition from management of product design to an integrated conceptualization of DM enveloped by the terms 'design thinking' and 'design and business models' (Erichsen and Christensen, 2013). The same transition was observed in this research and from the authors' perspective this shift to a more integrated design approach is an opportunity to create and develop a new DM approach for promoting socially responsible solutions.

Another model according to Cooper, Junginger and Lockwood (2009) (DMI) reflects two research areas of DM by bringing together both academic and professional insights. At the lower rungs of the ladder, research tends to centre on traditional design practices and the study of products and brand. Further up the ladder, systems theories, non-traditional products and, thus, thinking through design are being explored. (Rachel Cooper, 2009)

By combining and analysing the abovementioned studies by Erichsen and Christensen (2013) and Cooper, Junginger and Lockwood (2009) (DMI), the authors have created a visual model, "Development of Design Management", which outlines the main characteristics and changes over time (Figure 2). This model shows that DM has changed over time, transforming from a very fragmented focus on Design Management and specific design disciplines to a more generic and integrative focus on Design Management. This model also shows that during this period of time DT has gone from borrowed theoretical concepts to more autonomous theory. It further indicates that earlier the question focused on in research and practice was: How should the design process be managed? This question has changed to: What is the added value of Design Thinking? This transformation has led to a more systemic perspective on the role of design. In earlier times the main focus of DM was on the value of design in product development; later on it changed its focus to the market value of design and nowadays the focus is more on transformation by design, which leads to multidisciplinarity of problem solving. Moreover, in the beginning, when design awareness was just emerging, the context of DM was manufacturing. Later on DM development changed its course to the context of brand and marketing, which led to maturing design awareness. The current context of DM is organization and society and this has led to the awareness that design is essential in our society and might solve broader and more integrative problems than before. Over time the educational focus has developed from product design to experience and service design, which requires a more sophisticated and integral management approach. Continuing on, we can observe that nowadays the main focus of DM theory is on Design Thinking and Design Methods, which frees space for Design Management to be integrated into all disciplines, levels and processes, which requires innovation and creation.

To sum up, current DM has a more generic and integrative focus and current theory tends to be more autonomous. It is focused on the value that is added by design and Design Thinking; it has a more systematic perspective on the role of design, and DT leads to transformation with the help of design. The current DM context is organization and society. It is important to note that design awareness in no longer maturing and design has been accepted as an essential resource.

From the authors' point of view, this development and shift to a more generic and transformative approach in the context of organization and society and a more autonomous theoretical framework provides the opportunity to develop a DM approach for promoting socially responsible solutions. Theory and practice have reached their maturity over the last few years and Design Management through Design Thinking has freed itself to become adaptable for making solutions in very broad fields and disciplines, which is significant from the authors' point of view as significant contributions can now be made by adding DM to the context of social responsibility.

DESIGN MANAGEMENT

TIME

Specific Design disciplines		Generic and Integrative Focus
Borrowed theoretical concepts		More autonomous theory
How to manage design processes?		What is added value of Design Thinking?
		More systemic perspective on the role of design
Value of Design in Product Development	Market Value of Design	Transformation by Design
Context of Manufacturing [Emerging Design Awareness]	Context of Brand & Marketing [Maturing Design Awareness]	Context of Organization & Society [Essential Design Awareness]
Product Design	Experience & Services	Design Thinking and Design Methods

Figure 2. Development of Design Management
Source: Created by the authors

6. A NEW DESIGN MANAGEMENT APPROACH FOR PROMOTING SOCIALLY RESPONSIBLE SOLUTIONS

This research shows that there has been a conceptual transition from management of product design to an integrated conceptualization of DM, and current DM has a more generic and integrative focus leading to Design Thinking and Design Methods; moreover, this theory tends to be more autonomous than it was before. However, from the authors' perspective this theory does not put enough emphasis on social responsibility, which requires one to take into consideration all four dimensions and leads to DM and methods and tools that need to be adapted in dealing with sophisticated socially responsible solutions. It also requires one to deal with a broader set of stakeholders from different disciplines, such as biology, in the designing process, adapting and combining specific knowledge and skills in order to create and implement socially responsible solutions.

Based on previous research and in order to create a DM approach that is more focused on social responsibility, the authors set a context for promoting socially responsible solutions. From the authors' point of view, DM for promoting socially responsible solutions is DM that takes into consideration all dimensions of social responsibility – environmental, economic, social and cultural.

The authors propose new DM terminology for promoting socially responsible solutions: **Socially Responsible Design Management (SRDM).**

Comparing the concept of social responsibility and sustainability with DMI's Design Management definition and current design practices, the **authors propose three definitions** of Socially Responsible Design Management.

1. SRDM encompasses the ongoing processes, business decisions, and strategies that

enable innovation and create effectively-designed products, services, communications, environments, and brands that enhance socially responsible quality of life, *meet the needs of the present without compromising the ability of future generations to meet their own needs* and provide organizational success.

2.   SRDM seeks to link universal design, innovation, technology, sociology, biology, customers, other stakeholders and management to provide distinctive competencies across all four dimensions – economic, social, cultural, and environmental – in order to *meet the needs of the present without compromising the ability of future generations to meet their own needs.*

3.   SRDM is the art and science of empowering design to enhance collaboration and synergy between design, business, nature, society and culture to improve design effectiveness, universality, sustainability and quality.

CONCLUSIONS

Based on contextual research and the authors' approach, DM for promoting socially responsible solutions is DM that deals with all dimensions of social responsibility – environmental, economic, social and cultural.

Although there are so many approaches, definitions and meanings of DM found in this research, none of them points directly to the importance of sustainability and social responsibility in DM.

Most of the definitions and approaches are based on companies' economic interests and strategies. This means that DM is dependent on the companies, where design follows economic interests. DM theory, in this case, follows these practices and this is why the theory has developed in such a way.

Research shows that there has been a conceptual transition from DM for ensuring product design to an integrated conceptualization of DM which allows theoretical assumptions to move beyond traditional design practices and theories to move towards more sustainable solutions.

As mentioned before, recent DM practices are dependent on companies' strategies and interests. This means that it is crucial for businesses to understand how important social responsibility is and what the benefits and values are for the company and for society in general.

Although the Design Management Institute does not distinguish between social and cultural dimensions of DM, there is evidence that in recent years DM is facing more social and sustainable issues. As there are so many aspects, areas and integration processes DM is dealing with, there is potential for new DM approaches that promote socially responsible solutions in a clearer and more focused manner.

Based on DM Growth Models and dimensions of social responsibility, the authors have created a conceptually integrated DM model: Dimensions of DM integration in business in the context of social responsibility. This idea states that there are certain levels of design and its integration into the company starting from the product level, service level, and organization level and continuing to the organization's environment and infrastructure. Based on this approach, the broader the integration of DM, the greater the impact on the company and also on the four dimensions of social responsibility – economic, social, cultural and environmental. It also reveals that DM should be balanced and should consider all of these dimensions in DM processes. Further research shows that current practices such as Transformation by Design present an opportunity to develop a more socially responsible DM approach.

Based on the analysis of current DM research and practices, the authors have created a visual model, "Development of Design Management", which outlines the main characteristics and changes over time. It shows that current DM has a more generic and integrative focus and current theoretical frameworks tend to be more autonomous. There is a focus on the value added of Design Thinking in an era of contextual turmoil and a more systematic perspective on the role of design.

Another development is that the value of design in product development has changed to transformation by design in the context of organizations and society, where awareness of design is essential. Over time the educational focus has developed from product design to experience and service design and currently the focus is on Design Thinking and design methods.

From the authors' point of view, this development and shift to a more generic and transformative approach in the context of organizations and society provides an opportunity to develop a DM approach for promoting socially responsible solutions because, on the one hand, theory and practices have been sufficiently developed over time and, on the other hand, there is a fundamental need for socially responsible solutions provided by organizations.

More in-depth research is needed on DM and its practices – design strategy, Design Management processes and their implementation. As several design concepts for promoting social responsibility, such as Biomimicry, Eco-design, and Cradle to Cradle design, have been developed from different sciences such as design, architecture, environmental engineering and biology, it would be valuable to combine and apply these design concepts and approaches in DM, thus helping us to better understand its role in delivering socially responsible solutions and to create a more comprehensive approach.

REFERENCES
1.   Acklin, C. (2013), "Design Management Absorption Model: A Framework to Describe and Measure the Absorption Process of Design Knowledge by SMEs with Little or no Prior Design Experience: Design Management Absorption Model" Creat. Innov. Manag. 22, 147–160. doi:10.1111/caim.12022
2.   Best, K. Design Management. Managing Design Strategy, Process and Implementation. Second Edition ed. Fairchild Books. (2015), London: Bloomsbury Publishing Plc.
3.   Best, K. Design Management. Managing Design Strategy, Process and Implementation. Second Edition ed. Fairchild Books. (2015), London: Bloomsbury Publishing Plc.
4.   Danish Design Centre (DDC). (2016), "The Design Ladder: Four steps of design use". [Online] Available at: http://ddc.dk/en/2015/05/the-design-ladder-four-steps-of-design-use/[Accessed 09 04 2-16].
5.   Design Management Institute (DMI). (2016), DMI. [Online] Available at: http://www.dmi.org/?What_is_Design_Manag
[Accessed 09 04 2016].
6.   Erichsen, P. G., Christensen, P. R. (2013), "The Evolution of the Design Management Field: A Journal Perspective" Creat. Innov. Manag. 22, 107–120. doi:10.1111/caim.12025
7.   Gloppen, J. (2009) "Perspectives on Design Leadership and Design Thinking and How They Relate to European Service Industries" Design Management Journal, pp. 33-47.
8.   Hesselman, S., Walters, A. T., Kootstra, G. (2012), "AN ANALYSIS OF DESIGN MANAGEMENT PRACTICES IN EUROPE-A CRITICAL INVESTIGATION OF THE DESIGN MANAGEMENT STAIRCASE MODEL." Lead. Des. 193.
9.   Kadir, S. A., Jamaludin, M. (2013), "Universal Design as a Significant Component for Sustainable Life and Social Development" Procedia - Soc. Behav. Sci. 85, 179–190. doi:10.1016/j.sbspro.2013.08.349
10.   Knoskova, L. (2011), "Design Management", Studia commercialia Bratislavensia , pp. 91-101.
11.   Kootstra, G. L. (2009), "The Incorporation of Design Management in Today's Business Practices, An Analysis of Design Management practices in Europe", Rotterdam: Centre of Brand, Reputation and Design Management (CBRD), INHOLLAND University of Applied Sciences.
12.   Mozota, B. B. d. (2003), "Design Management, Using Design to Build Brand Value and Corporate Innovation", New York: Allworth Press.
13.   Rachel Cooper, S. J. T. L. (2009), "Design Thinking and Design Management: A Research and Practice Perspective", Design Management Review.
14.   Ramlau U. H., M. C. (2004) "In Denmark, Design Tops the Agenda", s.l.: Design Management Review.
15.   Vazquez, D., Bruce, M. (2002), "Design management – the unexplored retail marketing competence", Int. J. Retail Distrib. Manag. 30, 202–210. doi:10.1108/09590550210423672
16.   Westcott, M., Sato, S., Mrazek, D., Wallace, R., Vanka, S., Bilson, C., Hardin, D. (2013), "The DMI Design Value Scorecard: A New Design Measurement and Management Model", Des. Manag. Rev. 24, 10–16.