

STIMULATING FUNDING BEHAVIOR OF THE CROWD
CROWDFUNDING PROJECT CHARACTERISTICS TOWARDS SUCCESSFUL
FUNDING

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The President:

Prof. Dr. Bernhard Ehrenzeller

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Abstract

Crowdfunding represents an alternative, collaborative source of finance for a variety of different projects and has gained considerable popularity during the last years. Even though crowdfunding attracted increasing academic interest during the last years, it remains mostly unclear what differentiates successful from unsuccessful crowdfunding projects and which project characteristics have the potential to attract potential capital-givers from the crowd. This dissertation has the objectives to (1) investigate and structure ongoing research on crowdfunding project characteristics with influence on the funding success, (2) understand the impact of project characteristics beyond directly observable variables (3) analyze the application and effectiveness of crowdfunding governance mechanisms. In order to account for these objectives, this dissertation is structured in three research streams. The first research stream aims to identify and structure project characteristics with influence on the funding success of a crowdfunding project. Based on the findings of a systematic literature review, the research streams structures existing research and defines four distinct research perspectives. The second stream aims to examine how creative and hedonic experiences in project presentation can impact the likelihood of successful funding. The findings are based on the Consensual Assessment Technique and a Multivariate Analysis of Covariance provide insights on how creative and hedonic experiences can be created in crowdfunding and contribute to a better understanding on the funding behavior of the crowd. Finally, the third research stream aims to define governance mechanisms in the field of crowdfunding and to measure their effectiveness towards funding success of a project. By applying a Qualitative Comparative Analysis, it presents specific configurations of governance mechanisms. Consequently, this dissertation provides three main theoretical contributions. First, it creates a structured view on crowdfunding research, including the identification of limitations of existing findings, and provides an overview and better understanding of determinants with impact on the funding success of a crowdfunding project. Second, it provides empirical evidence on the impact of creative and hedonic experiences and sensation seeking behavior of capital-givers. Third, the dissertation provides foundations on the application of governance in the domain of crowdfunding and the effective configuration of governance mechanisms.

Zusammenfassung

Crowdfunding beschreibt eine alternative, kollaborative Finanzierungsform für eine Vielzahl verschiedener Projekte, die in den letzten Jahren stark an Popularität gewonnen hat. Obwohl Crowdfunding in den letzten Jahren viel Beachtung in der Forschung fand, bleibt bis heute weitestgehend unklar, wie sich erfolgreiche von nicht erfolgreichen Crowdfunding Projekten unterscheiden und welche Projektcharakteristika das Finanzierungsverhalten der Kapitalgeber aus der Crowd stimulieren. Das Ziel der Dissertation ist es, (1) eine Untersuchung und Strukturierung der aktuellen Forschungsergebnisse mit Bezug auf Projektcharakteristika und Projekterfolg vorzunehmen, (2) ein besseres Verständnis für Projektcharakteristika, die nicht direkt sichtbar sind zu schaffen und (3) eine Analyse von Crowdfunding Governance und dem Einfluss von Governance-Mechanismen auf den Projekterfolg vorzunehmen. Dazu ist die Dissertation in drei Teile gegliedert. Ziel des ersten Teils ist es, vorhandene Forschungsergebnisse anhand einer systematischen Literaturanalyse zu strukturieren und Forschungsperspektiven zu definieren. Der zweite Teil untersucht den Einfluss von kreativen und hedonistischen Erfahrungen, die durch die Projektpräsentation ausgelöst werden. Anhand der Consensual Assessment Technique bewertete Projekte werden die beiden Dimensionen im Hinblick auf ihren Einfluss auf den Projekterfolg mittels Multivariater Kovarianzanalyse untersucht. Der dritte Teil befasst sich mit der Definition von Governance-Mechanismen für Crowdfunding und analysiert mittels Qualitative Comparative Analysis wie die definierten Governance-Mechanismen konfiguriert werden können, um Einfluss auf den Projekterfolg zu nehmen. Zusammengefasst schafft die Dissertation drei wichtige theoretische Beiträge. Erstens schafft die Strukturierung aktueller Forschungsergebnisse und deren Limitationen einen geordneten Überblick zu Determinanten mit Einfluss auf den Projekterfolg aus verschiedenen Stakeholder-Perspektiven. Zweitens zeigt die Dissertation den Einfluss von kreativen und hedonistischen Erfahrungen und Sensation-Seeking Verhalten bei Kapitalgebern. Drittens präsentiert die Dissertation Governance Mechanismen für Crowdfunding sowie deren erfolgreiche Konfiguration zur Unterstützung von Projekterfolg.

Table of Contents

Acknowledgements.....	I
Abstract.....	II
Zusammenfassung	III
Table of Contents.....	IV
List of Tables	VIII
List of Figures.....	IX
List of Abbreviations	X
1 Introduction.....	1
1.1 Problem Statement	1
1.2 Research Questions and Research Method	5
1.3 Structure of the Dissertation	9
1.4 Overview of Publications.....	12
2 Theoretical Background.....	13
2.1 Crowdfunding	13
2.1.1 Concept of Crowdfunding.....	13
2.1.2 Types of Crowdfunding.....	16
2.1.3 Funding process.....	18
2.2 Signaling Theory.....	19
2.2.1 Information Asymmetries and Principal Agent Theory.....	19
2.2.2 Signaling in IT-based Scenarios.....	20
2.2.3 Quality Signals in Crowdfunding.....	21
2.3 Governance	24
2.3.1 Introduction to Governance.....	24
2.3.2 Governance in IT-based Communities.....	26
2.3.3 Governance in Crowdfunding	27

3	Crowdfunding Success Factors.....	29
3.1	The Need for Success Factors in Crowdfunding	29
3.2	Definition of the Review Scope	31
3.3	Literature Search	31
3.4	Literature Analysis and Synthesis.....	32
3.5	Findings.....	34
3.6	Discussion	38
3.6.1	Research Agenda	38
3.6.2	Limitations.....	40
3.7	Conclusion of the Chapter.....	41
4	Creative and Hedonic Experiences in Crowdfunding.....	42
4.1	The Potential of Creative and Hedonic Experiences in Crowdfunding.....	42
4.2	Influencing factors on Crowdfunding Behavior	44
4.3	Theory and Hypotheses Development	46
4.3.1	Investment decision making and sensation seeking.....	46
4.3.2	Creative experiences.....	47
4.3.3	Hedonic experiences.....	48
4.4	Methodology	50
4.4.1	Data Collection.....	50
4.4.2	Consensual Assessment Technique and Expert Panels.....	51
4.4.3	Variables and Measures.....	52
4.5	Results	54
4.5.1	Main Analysis: Hypothesis Testing	54
4.5.2	Sensitivity Analysis: Platforms Types	55
4.6	Discussion and Implications	56
4.6.1	Theoretical implications	57

4.6.2	Practical implications	59
4.7	Limitations and Future Research	60
4.8	Conclusion of the Chapter.....	61
5	Governance Mechanisms in Crowdfunding	62
5.1	The Need for Governance in Crowdfunding.....	62
5.2	Governance Mechanisms in Crowdfunding.....	66
5.3	Methodology	71
5.3.1	Data Collection.....	71
5.3.2	Variables and Measures.....	71
5.3.3	Qualitative Comparative Analysis	72
5.4	Results	74
5.5	Discussion and Implications	77
5.5.1	Theoretical implications	77
5.5.2	Practical implications	79
5.6	Limitations and Future Research	80
5.7	Conclusion of the Chapter.....	80
6	Synthesis of the Findings	81
6.1	Current State-of-the-Art on Crowdfunding Success Factors	81
6.2	The Role of Creativity and Hedonism in Crowdfunding.....	83
6.3	Effective Governance Mechanisms in Crowdfunding	85
7	Theoretical Contributions	87
7.1	Determinants of the Crowdfunding Process	87
7.2	Signaling towards Creativity and Hedonic Experiences in Crowdfunding	88
7.3	Governance Mechanisms in Crowdfunding.....	90
8	Practical Implications.....	93
8.1	Improvement of the Funding Process in Crowdfunding.....	93

8.2	Conception of Creative and Hedonic Experiences	94
8.3	Developing Governance Mechanisms in Crowdfunding	95
9	Limitations and Directions for Future Research.....	97
9.1	Evaluation of Creative and Hedonic Experiences.....	97
9.2	Application of Governance Mechanisms	99
9.3	Integration of Crowdfunding Project Characteristics	101
10	Conclusion	102
11	References.....	104

List of Tables

Table 1. Overview of Publications	12
Table 2. Definition of Review Scope	31
Table 3. Result of the Literature Search per Database	32
Table 4. Literature Synthesis	35
Table 5. Previously observed factors influencing behavior in crowdfunding.....	45
Table 6. Selection criteria for crowdfunding projects	51
Table 7. Investigated Crowdfunding platforms	51
Table 8. Variables and measures	53
Table 9. Descriptive statistics & Correlations	54
Table 10. MANCOVA Results.....	55
Table 11. Governance Mechanisms in Crowdfunding	70
Table 12. Investigated Crowdfunding platforms.....	71
Table 13. Configurations of Governance Mechanisms	75

List of Figures

Figure 1. Structure of the Dissertation.....	11
Figure 2. Publications per Year	33

List of Abbreviations

CAT - Consensual Assessment Technique

e.g. - *exempli gratia*

et al. - *et alii*

i.e. - *id est*

IT - Information Technology

IS – Information Systems

MANCOVA - Multivariate Analysis of Covariance

QCA - Qualitative Comparative Analysis

1 Introduction

1.1 Problem Statement

In the past decades the allocation and raise of funds was mainly conducted through the traditional financial system (i.e., financial markets, regulated banks). The traditional financial system is controlled and regulated and traditionally organized on national and international levels by banks through financial intermediation. Existing alternative forms of financing, especially collaborative finance, did not play a central role when individuals or organizations wanted to raise funds.

However, the established environment changed tremendously during the last years. The growing accessibility of information technology (IT), especially the Internet, and the rise of technology-based financial solutions has created a socio-economic shift that changed the perception of the traditional financial system. In addition, the financial crisis in 2008 and the ongoing process of digital disruption heavily weakened the position and reputation of banks. As a result, various alternative sources of funding emerged and gained importance. These alternatives challenge the traditional financial system and how funding will be provided in the future.

Probably the most famous phenomenon among these alternatives is crowdfunding. During the last years crowdfunding became a viable source of funding for a big variety of different projects. Crowdfunding has its roots among creative and artistic projects and spread out towards start-ups and other profit-oriented businesses (Agrawal, Catalini and Goldfarb, 2014; Mollick, 2014).

In general, there are three key value propositions for crowdfunding. First, crowdfunding allows a competitive pace of the funding process and projects can collect considerable amounts of funds in a comparably short period of time. Second, projects can actively interact and involve with capital-givers from the crowd to additionally benefit from the ‘wisdom of the crowd’. Third, crowdfunding offers a high level of risk-diversification for capital-givers in comparison to traditional investments. Although several crowdfunding projects achieved noticeable funding successes, the comparably fast development of this funding method is causing both practical and theoretical challenges.

In practice, crowdfunding shows serious pitfalls during the funding process of crowdfunding projects. The well-known investment decision behavior of herding is also present in the field of crowdfunding. Even though it is clear that herding behavior is triggered by early-adopters among capital-givers (i.e., capital-givers that participate in the funding process of a project at a very early stage), it is still unclear which additional factors have an influence on the funding decision of capital-givers from the crowd.

As a result, project initiators often follow a trial-and-error approach when it comes to presenting their project towards capital-givers of the crowd. In addition, there are documented cases of fraud where project initiators did not use the collect funds in the originally intended way. The combination of the quick development of crowdfunding and increasing specialization of the fields of application create heavy challenges for policy makers. Until this point, there are no general guidelines on how to control and govern crowdfunding projects. This is a universal threat for crowdfunding, since the risk of negative experiences for capital-givers decreases active participation in crowdfunding.

The activities, structures and challenges around crowdfunding have emerged without comprehensive theoretical or scientific analysis. Subsequently, crowdfunding is a relatively young and developing field of research. Research from information systems (IS) as well as finance-related disciplines is mostly focused the funding process. The most observed variable of the funding process is the outcome. A crowdfunding project can either successfully reach the defined funding goal in the defined time or fail to do so. Current research mainly examines directly observable project characteristics such as social capital and interactions, number and timing of funding participation or details of the project presentation.

Existing results allow a first explanatory approach towards funding success of crowdfunding projects but lacks thoroughness and generalizability. In addition, the quick evolvement and growing specification of crowdfunding require a more holistic approach towards analyzing crowdfunding project characteristics that stimulate and control funding behavior of the crowd. Following these two arguments, it is necessary to extend the existing domain of knowledge on crowdfunding in order to further

define how crowdfunding can complement or substitute traditional sources of funding.

Based on the described practical and theoretical pitfalls of crowdfunding this dissertation addresses three overarching challenges as outlined below.

Research Challenge 1 - Limited investigation of crowdfunding project characteristics that stimulate funding behavior:

In the last years crowdfunding became a vivid field of research and is mainly focused on crowdfunding project characteristics that play a role during the funding process and have an impact on its outcome. Thereby, the majority of crowdfunding research provides insights on single characteristics that were observed in one specific crowdfunding scenario. Particularly, these scenarios act within one single type of crowdfunding and the findings are normally based on data from one single platform. In this vein it should be noted that the types of crowdfunding have different dynamics and characteristics during the funding process.

Although many crowdfunding project characteristics with an influence on the funding behavior of the capital-givers have already been identified, it often remains unclear, if the project characteristics are generalizable and applicable even to the underlying type of crowdfunding. As a result, empirical crowdfunding research has identified mixed project characteristics that stimulate funding behavior. The isolated findings are often related to the individual platform level and to the type of crowdfunding. Despite first indications towards the impact of project characteristics beyond directly observable and measurable variables, current research mostly neglects a more details observation and analysis of this tendency.

As a result, the investigation of crowdfunding project characteristics is rather limited to the influence of isolated variables with influence on funding behavior of capital-givers. The current findings need to be structured, integrated and evaluated based on their influence in the different types of crowdfunding.

Research Challenge 2 - Limited investigation of crowdfunding project characteristics beyond directly observable characteristics:

Following the described indication of the existence of crowdfunding project characteristics that are not directly observable and measurable, it seems clear that further investigation is needed into this direction. Capital-givers are known to be positively influenced in their funding decision if the project initiator applied the method storytelling.

Subsequently, it can be argued that capital-givers' funding decisions are not only triggered by utilitarian values (i.e., receiving a return for participation), but also by cues beyond purely functional project characteristics. A known behavioral trait of professional investors in the field of traditional finance is the search for additional values aiming towards status, emotional experiences or social responsibility. This direction of research has been neglected in the field of crowdfunding so far. Although crowdfunding is dominated by (private) individual capital-givers, specific research insights on the occurrence of this trait in crowdfunding is needed. In this context, empirical results on the existence of project characteristics that trigger these behavioral traits of capital-givers are rare and research insights in the field of crowdfunding are needed.

Research Challenge 3 - Limited investigation of crowdfunding project characteristics towards controlling or governing funding behavior:

The various crowdfunding success stories drew a lot of attention among individuals or organization with the need for funding for their projects. As a result, the crowdfunding market heavily grew during the last years. Unfortunately, not only legitimate projects were presented on crowdfunding platforms and collected funding. Besides the already mentioned inefficiencies in crowdfunding, the strong occurrence of information asymmetries between the project initiator and capital-givers from the crowd and only limited prosecutive power of the crowdfunding platforms lead to cases of unwanted behavior or fraud.

However, research on how crowdfunding projects can integrate measures or mechanisms into their project presentation towards the crowd have been neglected

both by theory and practice. As a result, research is challenged to investigate how projects can integrate cues or variables that create trust and allow to control or govern the funding behavior of the crowd. First scholars call for the need of effective governance mechanisms in the field of crowdfunding. This is not only important to avoid fraudulent activities on both project initiator and capital-giver side, but also to decrease negative experiences during the funding process in general and to promote active participation of the crowd.

1.2 Research Questions and Research Method

The objective of this dissertation is to contribute to solving these three challenges by following three research streams with separate research questions and research methods. Thereby, each research stream is comprised of one or two studies that represent substantial standalone contributions.

The first research stream focusses on the comprehensive analysis and structure of crowdfunding characteristics with an influence crowdfunding projects' funding success. This approach is based on a systematic literature analysis with two main goals. First, it is necessary to identify, analyze and evaluate the current research on crowdfunding characteristics with an influence on the crowdfunding outcome at the end of the funding process. Second, it is necessary to systematically structure the investigated characteristics and to structure and define relevant perspectives in relation to the funding process in crowdfunding. Subsequently, this research stream and its findings serve as a foundation for the following research streams and to answer the consecutive research questions.

Building upon the findings of the first research stream, the second research stream aims to examine how crowdfunding project characteristics that aim towards creative and hedonic experiences have an influence on the funding behavior of capital givers. A quantitative study based on the Consensual Assessment Technique (CAT) is conducted to better understand how these factors have an impact on the funding success of crowdfunding projects. Finally, the third research stream integrates both findings of the first and the second research stream and aims to define governance

mechanisms in the field of crowdfunding to effectively control and govern funding behavior of capital-givers from the crowd.

To achieve this goal, a Qualitative Comparative Analysis (QCA) is conducted. The following paragraphs describe each research question and the methodological approach used in the studies in more detail.

Research Question 1

Which characteristics of crowdfunding projects have already been identified to stimulate funding behavior of capital-givers?

The first research question aims to define and structure characteristics of crowdfunding projects have already been identified to stimulate funding behavior of capital-givers. The purpose of this investigations is to gain a holistic understanding of the factors that determine funding success of crowdfunding projects. In particular, a systematic literature review has been conducted (Webster and Watson, 2002; Vom Brocke *et al.*, 2009) in order to understand the influencing factors of crowdfunding funding success. The scope of the literature review also included adjoining disciplines besides IS (use of technology), innovation (innovative source of funding and funding of innovative products/services) and management (managerial challenges of project success). This scope contributes to the holistic understanding of what is the state of the art in crowdfunding research as a basis for further research.

In the pursuance of structured results, the investigated literature is evaluated and categorized by the unit of analysis, analyzed source of data and type of crowdfunding. Additionally, the results are classified into the different stakeholder perspectives of the crowdfunding process. This makes it possible to clearly identify existing patterns of project characteristics in the funding process and more importantly to show additional areas for research regarding crowdfunding project characteristics with influence on the funding success.

In general, two main contributions are intended with the answer of this research question. First, the findings create a better und structured understanding of examined crowdfunding characteristics with respect to the different stakeholder perspectives that emerge in crowdfunding. This contributes to a better understanding on the

funding process and influencing factors of its outcome. Second, additionally to the understanding of which characteristics are well researched, answering the research question will provide valuable insights of yet uncovered areas of crowdfunding project characteristics with significance for outcomes of the funding process. Both findings of this research question built the basis for the following research streams and pave the way on the examination of crowdfunding project characteristics with an influence on funding behavior of capital-givers.

Research Question 2

How do crowdfunding project characteristics stimulate sensation seeking behavior of capital givers?

The second research question aims to define an empirically based explanatory approach of the impact of project characteristics that aim towards sensation seeking behavior on funding success. It intends to offer a better understanding on how certain project characteristics can influence funding behavior of capital-givers and the funding success of a project. For this purpose, a quantitative study with the analysis and evaluation of creative and hedonic experiences in crowdfunding projects has been conducted.

The study focusses on how creative and hedonic experiences can be observed and measured in the field of crowdfunding. In order to do so the evaluation of a holistic data collection of crowdfunding projects from different crowdfunding platforms and from each type of crowdfunding has been done by a defined expert towards their potential to cause creative and hedonic experiences. This has been done by applying the CAT for the evaluation of the defined variables of each dimension. Furthermore, the results of this evaluation have been evaluated against project success through the application of a multivariate analysis of covariance (MACOVA).

The answer of this research question is intended to provide two main contributions to this dissertation. It examines the integration and occurrence of creative and hedonic experiences in the field of crowdfunding. In addition, the answer provides empirically verified insights on the influence of creative and hedonic experiences on the funding success of crowdfunding projects.

Furthermore, the analysis shows differences in the impact of the variables of the two dimensions between the different domains of crowdfunding. In this way, the study contributes to a more detailed understanding of the funding process and capital-giver behavior and how project initiators or platforms can structure the presentation of projects towards meeting the expectation of the crowd.

Research Question 3

To what extent can project characteristics stimulate and control capital givers funding behavior?

The third research question aims to contribute to the dissertation by defining governance mechanisms in the field of crowdfunding. These mechanisms are supporting the funding process by controlling and governing the capital-givers from the crowd. In the field of crowdfunding, governance mechanisms fulfill functions that control for different elements of the funding process such as project offering, funding incentives or capital-giver interaction (Schulz and Blohm, 2019). Governance can be described as a system for organizing rules and processes that regulate and coordinate the behavior of project initiators and capital-givers (Blohm *et al.*, 2018). In apply and measure the effectiveness of governance mechanisms, six classes of governance mechanisms in the domain of crowdfunding are derived.

In order to measure the effectiveness of the defined governance mechanisms in regard to their influence on funding success of crowdfunding projects, the study follow the approach of a Comparative Qualitative Analysis (QCA) (Rihoux, 2003; Ragin, 2008a; Rihoux *et al.*, 2012). The application of QCA aims to identify configurational archetypes that are applicable to crowdfunding projects and increase the likelihood of successful funding.

This study intended to yield two contributions to this dissertation in two ways. For researches, the theoretical foundation of governance mechanisms in the domain of crowdfunding and the measurement of effectiveness towards funding success contribute to a deeper understanding of the funding process of crowdfunding projects as well as the behavior of capital-givers. In addition, the study provides differentiated archetypes of governance mechanisms that may serve as guidelines and additional value propositions of crowdfunding projects.

1.3 Structure of the Dissertation

In order to address the research questions as defined in the previous section, the following parts of dissertation are organized into 10 major chapters. Figure 1 provides an overview of the content of each chapter and the comprehensive structure of this dissertation.

Chapter 2 provides the comprehensive theoretical background of the dissertation for all continuing chapters. The chapter introduces related work in the field of crowdfunding, the signaling theory and governance theory. The phenomenon of crowdfunding is introduced in section 2.1 and described by the conceptual background, the different types of crowdfunding and a description of the funding process. Based on this foundation, section 2.2 presents the functionality of the signaling theory and its application in the field of crowdfunding. Finally, section 2.3 provides the theoretical background on governance and how governance can be utilized in crowdfunding.

Chapter 3 addresses the first research question of this dissertation by building upon the theoretical background and current state-of-the-art on success factor research in the area of crowdfunding. Based on a systematic literature review, it defines distinct stakeholder perspectives and classifies investigated literature accordingly. The findings of the chapter establish the foundation of the subsequent chapters.

Chapter 4 builds upon the results of chapter 3 and addresses the second research questions of the dissertation. The chapter focusses on the definition of creative and hedonic experiences in crowdfunding and the potential of the two dimensions towards influencing the funding outcome of crowdfunding projects. It presents the findings of study using the consensual assessment technique and multivariate analysis of covariance.

Chapter 5 addresses the third research question of the dissertation. It focusses on the definition of governance mechanism in the field of crowdfunding. In addition, the chapter measures the effectiveness of governance mechanism configurations in regards of the funding outcome of the crowdfunding project. The chapter presents the results of a Qualitative Comparative Analysis.

Chapter 6 synthesizes the main findings of the dissertation by integrating the results of the previous chapters. By doing so, the chapter provides an overview and a central discussion of all findings. Consequently, the findings of chapter 3, 4 and 5 are discussed in the light of the defined research challenges and questions as presented in section 1.1 and section 1.2.

Chapter 7 and 8 present the theoretical contributions and practical implications of the dissertation. Chapter 7 describes the implications for research on signaling theory and the influence of creative and hedonic value in crowdfunding in section 7.1. Section 7.2 describes the theoretical implication of governance mechanisms and their effective configuration in the field crowdfunding.

Lastly, Chapter 9 and 10 finish the dissertation. Chapter 9 outlines the limitations of the dissertation and reveals potential directions for future research to extend the results of the dissertation. Chapter 10 provides a concluding summary of the dissertation.

Figure 1 illustrates the structure of the dissertation.

1	Introduction			
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center; padding: 5px;">Motivation</td> <td style="width: 33%; text-align: center; padding: 5px;">Research Questions & Methods</td> <td style="width: 33%; text-align: center; padding: 5px;">Structure of the Dissertation</td> </tr> </table>	Motivation	Research Questions & Methods	Structure of the Dissertation
Motivation	Research Questions & Methods	Structure of the Dissertation		
2	Theoretical Background and Related Work			
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Crowdfunding	Signaling Theory	Governance		
3	Crowdfunding Success Factors (Research Question 1)			
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Analysis of Research on Crowdfunding Project Characteristics				
Results of Systematic Literature Analysis				
4	Creative and Hedonic Experiences in Crowdfunding (Research Question 2)			
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Data Collection and Consensual Assessment Technique				
Results of Multivariate Analysis of Covariance				
5	Governance Mechanisms in Crowdfunding (Research Question 3)			
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Data Collection and Qualitative Comparative Analysis				
Results of Governance Mechanism Configurations				
6	Synthesis of the Findings			
7 & 8	Theoretical and Practical Contributions			
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center; padding: 5px;">Crowdfunding Theory & Practice</td> <td style="width: 33%; text-align: center; padding: 5px;">Creative & Hedonic Experiences</td> <td style="width: 33%; text-align: center; padding: 5px;">Governance Mechanisms & Configurations</td> </tr> </table>	Crowdfunding Theory & Practice	Creative & Hedonic Experiences	Governance Mechanisms & Configurations
Crowdfunding Theory & Practice	Creative & Hedonic Experiences	Governance Mechanisms & Configurations		
9	Limitation and Future Research			
10	Conclusion			

Figure 1. Structure of the Dissertation

1.4 Overview of Publications

This dissertation is based on synthesizing studies and has partly been published in proceedings of peer-reviewed conferences and/or are under review for publication in scientific journals in the field of IS. Table 1 shows a list of the papers that are either currently under review or have already been published and their relation to the defined research questions. In addition, Table 1 illustrates which content of the presented papers have been used in which chapter of the dissertation.

<i>No.</i>	<i>Publication</i>	<i>Chapter</i>	<i>RQ</i>
1	Schulz, M. (2020). Crowdfunding Success Factors: A State-of-the-Art Analysis. Under Review: <i>33rd Bled eConference 2020</i> .	1, 2, 3, 6, 7, 8, 9, 10	RQ1
2	Schulz, M., Haas, P., Schulthess, K., Blohm I. and Leimeister, J. M. (2015). How Idea Creativity and Hedonic Value Influence Project Success in Crowdfunding. <i>Proceedings: 12th International Conference on Wirtschaftsinformatik (WI)</i> . (WI Best Paper Nominee)	1, 2, 4, 6, 7, 8, 9, 10	RQ2
3	Schulz, M., Blohm I. and Leimeister, J. M. (2020). How Creative and Hedonic Experiences Influence Investment Decision Behavior in Crowdfunding. Under Review: <i>Business & Information Systems Engineering (BISE)</i> .	1, 2, 4, 6, 7, 8, 9, 10	RQ2
4	Schulz, M. & Blohm I. (2019). The Effectiveness of Governance Mechanisms in Crowdfunding. <i>Proceedings of the 40th International Conference on Information Systems (ICIS)</i> . (ICIS Best Short Paper Runner Up)	1, 2, 5, 6, 7, 8, 9, 10	RQ3
5	Schulz, M., Blohm I. and Leimeister, J. M. (2020). Governance Mechanisms in Crowdfunding. Under Review: <i>ACM Transactions on Management Information Systems (TMIS)</i> .	1, 2, 5, 6, 7, 8, 9, 10	RQ3

Table 1. Overview of Publications

2 Theoretical Background

This chapter and its sections provide the theoretical background of the dissertation. The chapter is divided into the sections Crowdfunding (section 2.1), Signaling Theory (section 2.2) and Governance (section 2.3) in order to offer a review of related work on each topic.

2.1 Crowdfunding

2.1.1 Concept of Crowdfunding

The roots of crowdfunding can be found among music, creative and artistic projects (Agrawal, Catalini and Goldfarb, 2014). In the meantime, crowdfunding also became a viable funding alternative for start-ups in their early stage. Instead of drawing on friends and family, bank loans or venture capital as sources of funding project initiators can raise capital through a public open call to activate potential capital-givers from the crowd - usually on the Internet (Kleemann, Voß and Rieder, 2008; Hemer, 2011). This approach enables project initiators to access funding from a relatively large number of individual capital-givers through an open call on the internet (Schwienbacher and Larralde, 2010; Mollick, 2014). Crowdfunding can vary widely in their characteristics and funding goals. Usually, the crowdfunding process has three participating stakeholders. Project initiators, who seek funding for a project, capital-givers, who are willing to invest into a specific project, and crowdfunding platforms, acting as matchmaker between the other two parties (Belleflamme, Lambert and Schwienbacher, 2013).

Project initiators search for sources of funding in order to realize their project. In order to release the open call towards the crowd by presenting the project on a crowdfunding platform, project initiators need to define a comprehensive project presentation. The project presentation usually includes a detailed description of the planned activities (e.g., history of origin, service/product description, team/founder introduction). In addition, various multimedia components are used to visualize the concept of the project (e.g. videos, images, animations). Many projects integrate links to different social media presences (e.g. project page on Facebook, professional profiles of founders on LinkedIn) to be able to directly interact with potential and

actual capital-givers from the crowd. Interacting with the crowd creates additional non-financial benefits for the project initiators and their project. Following Surowiecki's (2005) idea of "the wisdom of the crowds" project initiators can exploit the engagement of the crowd in different ways. The direct interaction with the crowd allows for faster product or service development, since the presentation to potential capital-givers from the crowd can help the project initiator to better understand the needs of the market and potential clients through direct feedback from the crowd (Mollick and Nanda, 2016; Stanko and Henard, 2016). The exposure of innovative products can even help the project initiator to build a (stronger) brand around the project and its cause (Iyer *et al.*, 2016; Mollick and Nanda, 2016; Stanko and Henard, 2017). Furthermore, through interaction and engagement of the crowd, project initiators can transform their capital-givers to facilitators for gaining even more attention (Kim and Viswanathan, 2019).

Capital-givers from the crowd generally seek to participate in the funding process of crowdfunding projects. However, in practice capital-givers are driven by a wide range of different motives. This argument even applies in specific crowdfunding scenarios within one crowdfunding platform and thus, one specific type of crowdfunding (Lin and Boh, 2019). In practice, the majority of capital-givers from the crowd are private individuals that, in comparison to professional investors, only invest relatively modest amounts of money (Belleflamme, Lambert and Schwienbacher, 2013; Ahlers *et al.*, 2015).

Although the decision for participation in the funding process is the mainly shown by the financial contribution, the capital-givers from the crowd often get involved beyond the financial support of the project. Capital-givers often act as facilitators by promoting projects towards their peers (e.g. recommendation within individual capital-giver's environment) or strive for active engagement in the project's development (e.g. contribution to project development, evaluations, contributing knowledge or network) (Thies, Wessel and Benlian, 2016; Scheaf *et al.*, 2018).

Ordanini *et al.* (2011) define three desires as a result of their research on capital-giver motivation. The desire for patronage (1) defines the capital-givers' desire to participate in and to be partly responsible for the success of the supported

crowdfunding project. The desire for social participation (2) describes the desire to participate in a community and the wish for social interaction. The desire for investment (3) describes the desire to receive financial rewards for contributing to a crowdfunding project. The manifestation of these desires depends on the type of crowdfunding. (Ordanini *et al.*, 2011).

In addition, especially during the early phase of the funding process, capital-givers originate from the direct social environment (e.g. family and friends) of the project initiators (Agrawal, Catalini and Goldfarb, 2014). However, there are general characteristics or specific traits that individuals who join the crowd as capital-givers embody. Capital-givers from the crowd tend to socially identify themselves with the crowdfunding project and its cause. Furthermore, they tend to epitomize curiosity for innovativeness of products, but also for new ways of interacting with other individuals or capital-givers (Ordanini *et al.*, 2011).

Crowdfunding platforms can be described as socio-technical systems and act as intermediaries between crowdfunding projects and the crowd of capital-givers. The platforms are responsible for the curation of projects. This process often includes strict selections procedures and quality assessments (Mollick, 2014). Usually, the crowdfunding platforms define the mode of presentation for projects and provide strict boundaries (e.g. templates or toolkits for project presentations) for project initiators to present their project (Greiner and Wang, 2010; Nussbaumer, Matter and Schwabe, 2012).

Recently, crowdfunding platforms tend to specialize on certain funding scenarios (e.g. funding of start-ups, funding of real-estate projects). Besides offering the environment to collect funds, the crowdfunding platform also provide tools for direct communication and interaction between the capital-giver and the crowd (Thies, Wessel and Benlian, 2016; Stanko and Henard, 2017). Furthermore, the platforms role is to decrease information asymmetries between the crowdfunding project and the capital-givers from the crowd.

Although crowdfunding platforms already apply measures to avoid fraudulent behavior, especially of projects and their initiators (Siering, Koch and Deokar, 2016), unwanted behavior of both project initiators and capital-givers is still present. In the

past, the majority of all active crowdfunding platforms were operated by start-ups, while only a small minority of platforms was operated by established and incumbent businesses (Dushnitsky *et al.*, 2016). In order to efficiently conduct the intermediation between crowdfunding projects and capital-givers from the crowd, the crowdfunding platforms need to find a balanced ratio between the choice or proposition of projects towards capital-givers and the size of the crowd.

Crowdfunding platforms need to balance a healthy competition between projects and at the same time an appropriate choice of projects towards the crowd they manage (Wessel, Thies and Benlian, 2017). Despite the global accessibility of any crowdfunding platform, geographic origin of the crowd (Burtch, Ghose and Watal, 2013b; Agrawal, Catalini and Goldfarb, 2014) and national boundaries play an important role (Dushnitsky *et al.*, 2016). The reason for this are differences between countries' culture, economic situation and most importantly legal factors (Burtch, Ghose and Watal, 2013b; Dushnitsky *et al.*, 2016). As a result, policy makers are facing enormous challenges on different levels.

Consequently, crowdfunding platforms currently operate in an altering legal environment and need to be able to adapt themselves towards new regulations and laws (Beaulieu, Sarker and Sarker, 2015; Wessel, Thies and Benlian, 2017; Cumming, Meoli and Vismara, 2019).

2.1.2 Types of Crowdfunding

As an alternative source of funding, Crowdfunding is used in various scenarios to generate financial support through the crowd. Consequently, different types of crowdfunding exist. Practice and theory defined a multitude of different classifications that are mostly conceptual and not empirically verified. Usually, the types of crowdfunding are systematized based on the offered returns for capital-givers (i.e., financial rewards (interest, shares), non-financial rewards (pre-ordered product, samples) or no compensation on donations).

Hemer (2011) defines seven different types of crowdfunding: donation, sponsoring, preordering, membership fees, crediting, lending, and profit-sharing. Bradford (2012) distinguishes between donation, rewards, pre-ordering, lending, and equity

crowdfunding. Adding to this classification, Belleflamme et al. (2013) differentiate between pre-ordering and profit sharing. A well-known and widespread classification is Massolution's (2013) differentiation between donation-based, reward-based, lending-based and equity-based crowdfunding. However, the distinction between lending-based and profit-based crowdfunding is difficult, because in practice many crowdfunding platforms offer revenue models, that combine the two variables (i.e., mezzanine capital).

Haas et al. (2014) empirically verify three types of crowdfunding: Altruistic, Hedonistic and For-Profit crowdfunding. The differentiation of the three types of crowdfunding is directly linked with the return for capital-givers and is based on financial intermediation theories. The presented work in this dissertation differentiates between these three types of crowdfunding.

Altruistic crowdfunding platforms offer no material or financial rewards for capital-givers with altruistic motives, so that it resembles donation-based crowdfunding. These platforms allow project-initiators to set-up and present their projects with the single purpose of collection donation. Altruistic crowdfunding projects often follow social, communal or environmental purposes and aim for capital-givers with charitable or altruistic motives. Capital-givers in this type of crowdfunding normally do not have the intention to be financially rewarded. Their motivation can rather be described as altruistic or philanthropic.

Hedonistic crowdfunding platforms offer a non-financial reward, e.g., product samples or pre-purchasing rights, and basically reflect reward-based crowdfunding. On hedonistic crowdfunding platforms a variety of different projects mainly with a product-driven purpose are presented. Especially projects with an entertaining and creative product and an accordingly designed presentation profit from the funding potential of the crowd (Schulz *et al.*, 2015). Although capital-givers from the crowd among this type of crowdfunding have the expectation to receive a return for their participation in the funding process, the incentives for funding are not driven by financial motives.

For-profit platforms usually offer projects with a profit-orientation. Both start-ups and established companies use crowdfunding to receive funds from the crowd. In

return for the participation in the funding process capital-givers from the crowd receive either interest payments based on a loan-model or direct ownership of a small part of the project. Crowdfunding platforms with focus on loan-models normally offer fixed interest payments on the provided loan. Often, these platforms facilitate peer-to-peer loans where project-initiators as individuals receive loans directly from other individuals (Ahlers *et al.*, 2015). Crowdfunding with equity-models offer various forms of equity or comparable arrangements (e.g. mezzanine capital, profit-sharing) in exchange for participation in the funding process. Capital-givers who participate in for-profit crowdfunding are mainly driven by the expectation to receive direct financial rewards.

2.1.3 Funding process

The funding process of crowdfunding projects differs from classic investment scenarios. Project initiators must define a minimum funding goal that is required to realize their planned and presented project. In practice, crowdfunding platforms often allow the option to exceed the funding goals once they are reached instead of directly stopping the funding process.

Within the defined time frame crowdfunding projects either receive their defined funding goal clearly or fail to receive a significant amount of contributions at all (Wash, 2013; Kuppuswamy and Bayus, 2018). Consequently, it can be observed that project initiators set up their projects with a trial and error approach. In this context it is important to mention that crowdfunding platforms offer tool kits or templates in order to guide the project initiator towards the presentation of the project. However, the decision on the configuration of these templates and filling them with information is the obligation of the project initiator (Greiner and Wang, 2010).

There are two different funding models controlling for the payout of the collected funds that are distributed towards the project initiator after the funding process is ended (Burtch, Hong and Liu, 2018; Cumming, Johan and Zhang, 2019). The all-or-nothing model defines that where the project initiator will only receive the allocated funds, if the defined funding goal is reached within the defined time. In the keep-it-all model the project initiator keeps the collected funds at the end of the funding

process irrespectively of reaching the funding goal. Although the more common all-or-nothing model bears higher risk of not receiving funds for the project initiator, it encourages capital-givers to contribute higher amounts and yields in higher likelihood of funding success for offered projects (Cumming, Leboeuf and Schwienbacher, 2019).

The business model of the platform is mainly relying on the funding success of its curated and presented projects. The crowdfunding platforms usually charge a service fee to the project or its initiators in order to be remunerated for their service. The fee is normally calculated on the basis of the funding goal and often only charged, if the project is successful (Agrawal, Catalini and Goldfarb, 2014; Mollick, 2014). Consequently, it is also in the crowdfunding platform's interest to increase the likelihood of successful funding.

2.2 Signaling Theory

2.2.1 Information Asymmetries and Principal Agent Theory

Signaling theory provides an explanatory approach to situations where information asymmetries between parties exist by analyzing the signals sent by the different parties (Spence, 2002; Mavlanova, Benbunan-Fich and Koufaris, 2012). Spence (1973) defines such signals as activities of individuals which change the beliefs of other participating individuals in the market. These signals are sent and used to overcome or reduce information asymmetries regarding the quality of a product or service, a party's motivation and intended behavior (Connelly *et al.*, 2011).

This circumstance can be associated with the principal-agent theory (Eisenhardt, 1989), where the allocation of information between two contractual partners is unequal. The theory describes these two contractual partners as principal and agent and is based on the relationship of the two. The so called agency relationship defines a situation where one individual (the agent) takes actions on behalf of another individual (the principal) based on a mutually-agreed contract (Eisenhardt, 1989). Both principal and agent have self-oriented goals and values that are contradictory to each other. This contradiction leads to two dilemmas.

First, hidden information arise before a contractual agreement is made (ex ante), cause adverse selection and have an influence on transaction (agency) costs (Akerlof, 1970; Eisenhardt, 1989). Adverse selection describes a situation where the agent possesses private information that are hidden towards the principle (Akerlof, 1970). Consequently, one contractual partner (principle) is not fully informed about the characteristics of the other contractual partner (agent) before agreeing on a contract. (Stiglitz, 2000). As a result, the principle may choose the wrong contractual partner to take the desired action. One example for adverse selection can be observed in financial markets where managers of a company possess hidden information about the true value or risks of their company. Investors, however, do not have this information und bear the risk to take undesired investment decisions by adversely selecting a company to invest in (Forsythe, Lundholm and Rietz, 1999). To solve this problem, qualitative signals can be sent by a contractual partner (Spence, 2002).

Second, hidden action can take place after contractual agreement is made (ex post) and cause moral hazard. The risk of moral hazard is based on the behavioral intent of a contractual partner (Stiglitz, 2000). Subsequently, moral hazard describes a situation where one contractual partner (agent) does not behave or take the actions according to the mutually agreed contract. This engagement in hidden action profit the agent, normally at the expense of the principle (Jensen, M.C.; Meckling, 1976). The principle cannot effectively monitor the agent's behavior or performance. Still, the impact of moral hazard can be reduced by the mechanisms of incentives (Ross, 1973). The relation between the principal and agent has been investigated by different scholars in various IT-based and e-commerce environments (Ndofor and Levitas, 2004; Connelly *et al.*, 2011; Scheaf *et al.*, 2018).

2.2.2 Signaling in IT-based Scenarios

Signaling is considerably important in e-commerce scenarios where sellers of a product effectively signal the value of their offer in order to be different from their competitors (Ndofor and Levitas, 2004). Subsequently, the product presentation in e-commerce scenarios is of enormous importance and critical towards the buying decision of potential consumers (Jiang and Benbasat, 2007; Liao *et al.*, 2016). The presentation formats and applied technologies are able to influence the consumers

intention for purchasing a certain product and also their willingness to return to a certain e-commerce site (Jiang and Benbasat, 2007). As a result, the product presentation needs to be adapted in order to meet the intentions and preferences of potential consumers. For this purpose, characteristics of the product presentation need to have the ability to influence the consumer's awareness, attitude and perception (Liao *et al.*, 2016; Lin *et al.*, 2019). Research has shown that signals in product presentations strongly influence the consumers' behavior (Jiang and Benbasat, 2007). This is especially important for competing products or services that fulfill similar functional consumer needs. In these scenarios the decision-making process of consumers is driven by the received signals from the product (or service) presentation. Strengthened by the absence of or limitations in physical access to information about the buyer, the importance of these signals on the purchasing decision increases in e-commerce scenarios (Wells, Valacich and Hess, 2011).

In order to conduct effective signaling, the signals should have two main characteristics. First, observability of a signal defines to which extent the signal is noticed and understood by the recipient. In effective signaling settings the observability is high. Second, the cost of a signal defines the costs of producing and sending the signal. These costs must be lower than the potential benefits. In positive signaling scenarios recipients can differentiate between the quality of signals and honest signals are valued while dishonest signals are not rewarded (Connelly *et al.*, 2011; Ahlers *et al.*, 2015).

2.2.3 Quality Signals in Crowdfunding

The crowdfunding process has certain similarities with buying a product in e-commerce. The most important one is probably the inability of capital-givers from the crowd to sufficiently or physically analyze and evaluate crowdfunding projects prior to taking the funding decision (Wells, Valacich and Hess, 2011). Crowdfunding projects and its stakeholders participate in an imperfect market which is characterized by strong information asymmetries between project initiators and capital-givers (Kortleben and Vollmar, 2012). Subsequently, the principal agent theory can be applied to the phenomenon of crowdfunding.

In the domain of crowdfunding the capital-givers from the crowd take the role of the principal. Project initiators that seek funding from the capital-givers of the crowd can be seen as agents. Compared to classical principle-agent relationships, the distribution of principle and agent roles in crowdfunding can be seen as inverted (Chaney, 2019). As a result, by selecting interesting projects, the capital-givers from the crowd try to control and steer the actions of potential projects (i.e., their project initiators). Still, both stakeholders, individual capital-givers and project initiators, have their individual, self-interested goals. Consequently, the challenges of adverse selection due to hidden information and moral hazard due to hidden action are also present in crowdfunding (Kortleben and Vollmar, 2012; Chaney, 2019).

The risks of adverse selection appear during the funding process. Project initiators present their projects on the crowdfunding platform in order to attract funding from capital-givers from the crowd. During this phase capital-givers face two main challenges that can be related to hidden information or adverse selection. Both challenges occur during the funding process when the capital-givers from the crowd browse through the presented projects in order to choose a project they want to support (Agrawal, Catalini and Goldfarb, 2014; Mollick, 2014).

The first challenge for capital-givers are hidden information on the outcome of the funding process for a specific project. At any point during the funding process it remains unclear to the capital-giver, if his invested money will be paid out to the project. This challenge is directly related to the all-or-nothing funding model that controls and defines the payout towards the project. Consequently, behavioral patterns, such as herding behavior, are also omnipresent in the different types of crowdfunding (Herzenstein, Dholakia and Andrews, 2011; Jiang *et al.*, 2018; Kim and Viswanathan, 2019). The second challenge is the capital-givers inability to fully assess the chances and risks of the crowdfunding project. Capital-givers from the crowd are mostly private individuals with limited resources, financial sophistication and experience in due diligence or quality assessments (Belleflamme, Lambert and Schwienbacher, 2013; Valancene and Jegeleviciute, 2013; Ahlers *et al.*, 2015). Consequently, the capital-giver, has only very limited possibilities to assess the chances of feasibility or the quality of the business plan.

Both described challenges occur before the end of the funding process and can be related to adverse selection. These information asymmetries regarding the project's characteristics put the capital-givers from the crowd in a disadvantageous position. However, the capital-givers also face heavy challenges and risks after the funding process has been successfully finished and the collected funds are released to the project. These challenges and risks are caused by possible hidden actions of the project or its initiator and ascribe moral hazard.

Once the funding goal has been reached or in case of the keep-it-all funding model at finishing the defined time frame, the collected funds of the capital-givers are paid out to the crowdfunding project. At this point, there is currently no mechanism or process that controls or accounts for the appropriate and agreed use of these collected funds (Mavlanova, Benbunan-Fich and Koufaris, 2012; Chaney, 2019). As a result, the capital-givers from the crowd need to trust the information provided by the project initiators before having received the collected funds. This obvious disadvantage for capital-givers has special significance in crowdfunding, since the individual capital-givers only have strongly limited resources to prohibit or take actions against unwanted (i.e. fraudulent activities of project initiators) behavior of the project.

Consequently, signaling is also important in the field of crowdfunding, where projects compete against each other to attract funding from the crowd. The capital-givers from the crowd need to choose the projects they want to support. Especially the presentation of crowdfunding projects itself towards the crowd shows many parallels to presenting an offer on an e-commerce website.

Participants of a signaling process are the project initiator as the sender, the crowdfunding platform as amplifying intermediary of the signal and the capital-givers as the receivers of a signal that causes at the placement of a funding or feedback (Connelly *et al.*, 2011). Although the distribution of roles in the signaling between the different stakeholders of the crowdfunding process seems clear, it is important to keep the differentiation between the different type of crowdfunding in mind. In section 2.1.2 the dissertation presents differences among the various fields of application for crowdfunding and follows the definition of three distinct types of crowdfunding.

Ahlers et al. (2015) argue that the impact of information asymmetries and, thus, the importance for signaling varies between the different types of crowdfunding. Consequently, they argue that information asymmetries play only a subordinate role in Altruistic crowdfunding, because rewards both financial and non-financial are not the main motivation or incentive to participate for capital-givers from the crowd. The relevance of information asymmetries and related risks raises in the field of Hedonistic crowdfunding where capital-givers receive non-financial rewards in exchange for active participation in the funding process. The capital-givers need to evaluate the feasibility of the presented project in order to estimate the chances of receiving the desired non-financial reward (e.g. first version of product). However, in For Profit crowdfunding the impact of information asymmetries and the need for sending appropriate signals regarding the project quality are high. Capital-givers from the crowd expect a financial reward on their funding participation and are incentivized by different motives than in Altruistic or Hedonistic crowdfunding scenarios (Ahlers *et al.*, 2015; Allison *et al.*, 2015).

Interestingly, the perception of signals differs even within the specific type of crowdfunding. For example, Hildebrand, Puri and Rocholl (2017) discovered the occurrence of adverse selection despite the signals of project characteristics in For Profit crowdfunding. Their study observed scenarios where capital-givers chose to participate in the funding process of projects that were forced to signal their higher default risk on the crowdfunding platform (Hildebrand, Puri and Rocholl, 2017).

The crowdfunding intermediaries offer different features to present the project in order to minimize these asymmetries and to build trust (Greiner and Wang, 2010). As a result, it is also the crowdfunding platform's role to integrate templates or cues for project initiators to be able to realize sending signals to show their project quality towards capital-givers from the crowd (Kunz, Bretschneider and Erler, 2017).

2.3 Governance

2.3.1 Introduction to Governance

In general, governance refers to a system for coordinating rules and processes in order to regulate the behavior of individuals in a particular setting (Forte, Larco and

Bruckman, 2009). Governance can be based on laws, norms, defined or undefined rules and can be initiated by the government of a state, markets as well as formal and informal organizations (Bevir, 2008). Especially in the field of traditional finance, more precisely publicly traded firms, institutional and corporate governance have gained a lot of attention during the last years. However, research has shown extensive differences between institutional or corporate governance in between different countries and argue that a more context-sensitive approach towards the definition of governance is necessary (Williamson, 1998; La Porta *et al.*, 2000).

Corporate governance has its roots in the definition on how companies ensure the appropriate return of profits towards shareholders as a reward for adequate utilization of the money that has been invested (Alchian and Demsetz, 1972; Shleifer and Vishny, 1997). Beyond this traditional legal duties the shareholder-first approach was challenged by corporate social responsibility initiatives with the argumentation of also considering other stakeholders and social cost (Coase, 1960). Since then, activities around corporate responsibility and stakeholder management can be seen as important parts of corporate governance (Donaldson and Preston, 1995).

Corporate governance has the potential to provide a certain level of safety or protection for a company's shareholder, but also other investors. The impact of activities of corporate governance is influenced by internal factors and external factors. Internal factors relate to characteristics, processes and activities of the within the company. External factors relate to the environment in which the company operates and includes legal frameworks or other country related regulations. The attributes and the interaction of these two levels have an impact on the structure and operation of a company. This can include the choice and election of executive personnel and the advisory board, rules on compensation and management of creditors and shareholders (La Porta *et al.*, 2000; Almaskati, Bird and Lu, 2020).

Although corporate governance often has a negative connotation and are linked towards the avoidance of fraud or other unwanted behavior, corporate governance can also provide benefits for companies and directly impact a company's valuation (Walsh and Seward, 1990; Shleifer and Vishny, 1997; Daily, Dalton and Cannella, 2003). The adaption of good corporate governance practices can lead to better access

to external sources of finance and improved conditions for the allocation of funds. However, these benefits may differ depending on the external factors around the company (Doidge, Andrew Karolyi and Stulz, 2007; Aggarwal *et al.*, 2009).

2.3.2 Governance in IT-based Communities

In order to participate in different kinds of IT-based communities, users normally need to accept or agree to a certain code of conduct or similar domain-specific rules. These rules aim to establish measures and mechanisms to regulate and control the behavior of participants (Preece, 2004; Ridings, Gefen and Arinze, 2006). Research in this field is especially focused on various kinds of online communities with the purpose of collaborative value creation such as open innovation or open source communities (Bowles and Gintis, 2002; Markus, 2007; O'Mahony and Ferraro, 2007). Extending the above mentioned definition of Forte *et al.* (2009), in online-communities governance focusses on formal and informal rules, processes regarding roles, responsibilities and communication, structures for task allocation and control measures for desired outcomes (Shah, 2006; Markus, 2007; Zogaj and Bretschneider, 2014).

More recently, scholars specifically identified governance as a critical challenge in crowdsourcing settings (Boudreau and Lakhani, 2013; Zogaj and Bretschneider, 2014). Consequently, research has shown the need for appropriate mechanisms for regulating and controlling the crowd in order to reach the desired outcome or result (Chanal and Caron-Fasan, 2010; Blohm *et al.*, 2018). In the extensive field of crowdsourcing, governance can be defined as measures to control and to coordinate behavior of individuals and means of defining or achieving the direction or goal (Zogaj and Bretschneider, 2014; Blohm *et al.*, 2018). Governance itself is realized and carried out by governance mechanisms that are applied to the appropriate context (Dahlander, Frederiksen and Rullani, 2008).

Zogaj and Bretschneider (2014) define governance mechanisms in crowdsourcing as relation to relational norms and agreements, control-enhancing structures, decision-processes, procedures and evaluation systems, organizational structures and reward systems. More specifically, their research identifies mechanisms to monitor and

sanction participant's behavior in order to establish common standard and regulations, mechanisms to coordinate operations and tasks, mechanisms towards participant management (Zogaj and Bretschneider, 2014). Extending this theoretical approach Blohm et al. (2018) define distinct governance mechanisms in the field of crowdsourcing. They derive six classes of governance mechanisms: task definition, task allocation, quality assurance, incentives, qualification and regulation (Blohm *et al.*, 2018).

2.3.3 Governance in Crowdfunding

Several researchers indicate the need for appropriate governance mechanisms in the field of crowdfunding (Ahlers *et al.*, 2015; Wessel, Thies and Benlian, 2017). Still, the investigation of governance or research around governance mechanism in the field of crowdfunding is scarce. Nevertheless, crowdfunding is facing extensive challenges and risks for all participating stakeholders (Valancene and Jegeleviciute, 2013).

Project initiators that present their project in very detail towards the crowd accept the risk of their business model or idea being stolen and copied (Schwienbacher and Larralde, 2010). Project initiators usually lack knowledge and resources to protect their intellectual property before presenting it to the crowd (Gobble, 2012). Furthermore, it is often unlikely that project initiators will be able to provide necessary resources in case of theft of their idea or intellectual property (Gerber and Hui, 2013; Valancene and Jegeleviciute, 2013).

On the other side of the process, capital-givers from the crowd face the enormous risk of not receiving the agreed or preconcerted reward for their participation in the funding process (Gobble, 2012; Sigar, 2012). This incident can either be related to managerial or operational problems during the project execution (Agrawal, Catalini and Goldfarb, 2014; Mollick, 2014) or fraudulent behavior of the project initiators that do not follow their agreed intention on the use of the allocated funds (Valancene and Jegeleviciute, 2013). Partly, the reasons for the occurrence of fraudulent behavior can be linked with strong information asymmetries. More precisely, all types of

crowdfunding usually have very low requirements of information disclosure for projects and their initiators (Valancene and Jegeleviciute, 2013).

Additionally, the IT-mediated process on the Internet normally does not require any physical contact during the entire funding process (Sigar, 2012). Another major challenge for crowdfunding is the absence of any post-funding control mechanism for projects (Gerber and Hui, 2013). Another important factor that requires a certain amount of governance is based on the characteristics of capital-givers from the crowd. Research has shown that the majority of capital-givers from the crowd consists of private individuals with limited financial means (i.e. investment of relatively small amounts of money) as well as limited financial or investment experience (Belleflamme, Lambert and Schwienbacher, 2013; Mollick, 2014; Ahlers *et al.*, 2015).

Crowdfunding platforms at the same need to overcome severe challenges in providing appropriate structures and processes to steer and communicate to a large amount of capital-givers from the crowd (Kitchens and Torrence, 2012). In comparison to publicly listed companies, crowdfunding platforms are often operated by start-ups (Dushnitsky *et al.*, 2016). Consequently, they often lack experience, processes or systems in order to fulfill this task appropriately. Furthermore, the crowdfunding platforms are in constant and growing competition between each other in attracting project initiators with promising project ideas, managing and entertaining the capital-givers from the crowd and maintain a trustworthy image towards the two parties (Valancene and Jegeleviciute, 2013).

Combined, these challenges not only put crowdfunding on an operational level at risk, but also weakens its competitive advantages towards more traditional sources of finance. The impact of these challenges and risks could be diminished by the introduction of appropriate mechanisms for crowdfunding governance (Ahlers *et al.*, 2015; Wessel, Thies and Benlian, 2017).

3 Crowdfunding Success Factors

The following chapter addresses the first research question of the dissertation and focusses on current state-of-the-art on success factor research in the area of crowdfunding. The chapter presents an overview of the results of a systematic literature review and classifies investigated results into crowdfunding stakeholder perspectives to create a holistic understanding on crowdfunding success factors. This chapter illustrates the foundation for the subsequent chapters and sections of the dissertation that carry out research on potential crowdfunding project characteristics with influence on funding success (see chapters 5 & 6).

This chapter proceeds as follows: Section 3.1 describe the motivation and the objectives of the systematic literature review in more detail. In section 3.2 the scope of the literature investigation is defined. Afterwards, the approach towards the literature search and the proposed framework are introduced. Section 3.3 includes the presentation of our findings and is followed by section 3.4 that describes and discusses the possible research agendas. After pointing out the limitations of this literature review, the chapter is finished with a conclusion that summarizes the results.

3.1 The Need for Success Factors in Crowdfunding

In the last years crowdfunding has become a viable source of funding for a variety of different projects. Project initiators have started to kick-off the funding process for their projects through public open calls on the Internet to seek financial help of capital-givers from the crowd. The roots of this phenomenon can be found among creative and artistic projects, but crowdfunding spread out towards entrepreneurial projects and other profit-oriented businesses (Agrawal, Catalini and Goldfarb, 2014; Mollick, 2014). In comparison to traditional sources of funding like friends and family, bank loans or venture capital, crowdfunding offers considerable advantages: speed of funding process, risk diversification for capital-givers and capital-giver involvement ('wisdom of the crowd') (Kleemann, Voß and Rieder, 2008). As a result, crowdfunding gained noticeable funding potential and recent successful projects from the Blockchain (e.g., *EOS*, *DAO*) or Gaming (e.g., *Star Citizen*) sector individually collected amounts of more than 100,000,000 USD. Successful crowdfunding

campaigns usually have certain characteristics in common: they tell a story around the project, they actively involve capital-givers through updates and direct communication and offer appealing compensations for funding participation (Agrawal, Catalini and Goldfarb, 2014; Manning and Bejarano, 2017; Scheaf *et al.*, 2018). However, in practice crowdfunding projects either “receive all of their money or fail to receive much at all” (Wash, 2013).

The vital link between project initiators and capital-givers is provided by crowdfunding platforms. These IT-based platforms can be seen as socio-technical systems and allow project initiators to interact with a large number of capital-givers in a (cost) effective manner. Crowdfunding platforms define the mode of interaction between project initiators and capital-givers (i.e. presentation layout, user interface, communication tools). Capital-givers from the crowd can browse and visit a range of projects on a crowdfunding platform. In order to present themselves the crowdfunding platforms usually offer toolkits or templates to the project initiators that seek funding for their project. When presenting a new project on a platform, the project initiators need to present their project within these boundaries to successfully reach their funding goals.

Current crowdfunding research is mainly focused on conceptualizing and comparing directly observable project characteristics to define variables with influence on the funding success. However, most researchers focus only on certain types of crowdfunding or data from one single platform. Thus, many findings are unstructured, lack generalizability and are difficult to compare or extend. This chapter intends to clear this issue by reviewing existing crowdfunding literature through a structured and systematic literature review following Webster and Watson (2002) and Vom Brocke (2009). The results of this literature review are presented in a proposed framework that summarizes existing research on crowdfunding success factors. Our work contributes to crowdfunding literature by providing a basis for future theory development while elaborating various pathways for future research.

3.2 Definition of the Review Scope

The first step of a rigorous literature review is the definition of the review scope for which we follow the taxonomy of Cooper (1988). The chapter focuses on research outcomes and the applications of crowdfunding success factors (1). The goal of the literature review is to build an integrative (2) overview of the existing body of knowledge to present the state of the art (4) as it addresses specialized scholars (5). Table 2 shows the literature review scope.

Characteristics	Categories			
1. Focus	Research Outcomes	Research Methods	Theories	Applications
2. Goal	Integration		Criticism	Central Issues
3. Organization	Historical		Conceptual	Methodological
4. Perspective	Neutral Representation		Espousal of Position	
5. Audience	Specialized Scholars	General Scholars	Practitioners	General Public
6. Coverage	Exhaustive	Exhaustive & Selective	Representative	Central/pivotal

Table 2. Definition of Review Scope

3.3 Literature Search

This work focuses on crowdfunding and success factors of the crowdfunding process, in pursuance to fulfill the base requirement of a rigor literature to “provide a working definition of key variables” (Webster and Watson, 2002). In order to identify relevant articles and to assure a rigorous, comprehensive, and traceable literature search, a systematic literature review was conducted (Vom Brocke *et al.*, 2009). First, a journal search was executed, followed by a database search with keywords. Second, a forward and backward search of citation indexes was conducted (Levy and Ellis, 2006).

The journal search is the first step as major contributions are likely to be found in leading journals (Webster and Watson, 2002). For the journal search, leading journals from Information Systems (IS) and Technological Innovation, Entrepreneurship, and Development we considered. These included Journal of Management Information System (JMIS), Journal of Business Venturing (JBV), Entrepreneurship Theory and Practice (ETP), Research Policy (RP) and Management Science (ManSci). The

following databases were queried: EBSCOhost, Web of Science, ProQuest, ScienceDirect.

The keyword search is the core of a literature search. According to the above defined key variables, the keyword search was conducted in afore mentioned databases with the following search strings: (1) “crowdfunding” AND “success factors”, (2) “crowdfunding” AND “success”, (3) “crowdfunding” AND “project”, (4) “crowdfunding” AND “platform”, (5) “crowdfunding” AND “motivation”, (6) “crowd” AND “funding”, (7) “crowd” AND “investing”, (8) “crowd” AND “investor”. The literature search closed with a forward and backward search. Table 3 shows the results of the literature search.

Search String	EBSCO host		Web of Science		ProQuest		Science Direct		TOTAL	
	Hits	Rev.	Hits	Rev	Hits	Rev.	Hits	Rev.	Hits	Rev
“crowdfunding” AND “success factors”	13	7	17	2	2	2	53	19	85	30
“crowdfunding” AND “success”	23	14	14	11	6	3	58	21	101	49
“crowdfunding” AND “project”	33	11	15	13	6	5	50	24	104	53
“crowdfunding” AND “platform”	67	12	20	14	13	11	48	17	148	54
“crowd” AND “investor”	30	6	13	10	14	1	169	7	226	24
“crowd” AND “funding”	53	9	40	7	0	0	186	9	279	25
“crowd” AND “investing”	2	1	8	6	8	1	166	4	184	12
TOTAL	221	60	127	63	49	23	730	101	1127	247

Table 3. Result of the Literature Search per Database

3.4 Literature Analysis and Synthesis

The literature review identified a total of 28 relevant papers. Considering the publication dates, it is no surprise that crowdfunding is at a comparably early stage of scientific research, since crowdfunding in general itself is still an emerging

research topic. Apart from one paper published in 2014 all identified relevant papers were published in 2015 or later. In addition, crowdfunding research is done from strongly varying perspectives (for example: IS, marketing, finance, innovation research). However, it must be kept in mind that crowdfunding is a trending topic and recently gained a lot of attention from the scientific community. In order to only review papers with a high-quality standard, we established a strong focus on journal papers. Figure 2 presents the publications per year.

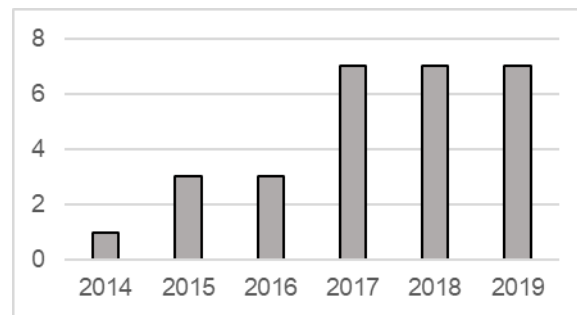


Figure 2. Publications per Year

In order to synthesize the literature, appropriate categories need to be developed. This paper tackles this issue by developing categories based on existing literature on crowdfunding in general. Based on the fundamental works of Belleflamme et al. (2013) and Mollick (2014) we developed four categories to evaluate the literature based on the perspective of the stakeholders in the crowdfunding process: (1) crowd or capital-giver perspective, (2) platform perspective, (3) project (initiator) perspective and (4) legal perspective.

(1) Crowd or capital-giver perspective

In the crowdfunding process an undefined number of capital-givers forms the crowd. The capital-givers from the crowd provide funding for the crowdfunding projects. Usually this happens on the crowdfunding platform where the projects are presented towards the crowd. The perspective and behavior of capital-givers plays an important role, since they must take the funding decision towards a project. This category includes all papers with a focus on capital-giver behavior and motivation during the funding process.

(2) Platform perspective

As intermediaries between capital-givers and crowdfunding projects the crowdfunding platforms play a central role in the crowdfunding process. This category sums up all papers with a focus on crowdfunding platforms, design requirements and other managerial challenges that platforms as intermediaries face in the crowdfunding process.

(3) Project (initiator) perspective

The presented projects that seek funding for their planned activities are essential in the crowdfunding process. Project initiators can present their projects on crowdfunding platforms towards the crowd in order to attract funding from the capital-givers. This category integrates all paper with a focus on the crowdfunding project, project initiators, project characteristics and design principles.

(4) Legal perspective

Currently, crowdfunding is facing challenges of changing legal environments (Bhattacharjee *et al.*, 2011; Heminway, 2014). It is very likely that the legal environment also has an impact on the success of a crowdfunding project (Cumming and Johan, 2013; Hornuf and Schwienbacher, 2017). Consequently, this category includes all papers that deal with the legal environment of crowdfunding.

3.5 Findings

In general, it can be said that most of the existing research in the field of crowdfunding success factors strongly focusses on the project as unit of analysis. More than 90% of the investigated literature only used data from one single platform and one specific type of crowdfunding. Additionally, the examined papers mainly focus on directly observable and measurable project characteristics. However, nearly all investigated papers lack a managerial perspective with implications or guidelines for the project initiator to create successful crowdfunding projects. Table 4 shows the detailed results of the literature synthesis.

Paper	Type of Crowdfunding	Crowd/ Capital-giver	Platform	Project	Legal
Ahlers et al. (2015)	Equity-based			x	x
Allison et al. (2015)	Equity-based	x		x	
Burtch et al. (2018)	Reward-based		x		
Butticè et al. (2017)	Reward-based			x	
Chan & Parhankangas (2017)	Reward-based			x	
Colombo et al. (2015)	Reward-based			x	
Courtney et al. (Courtney, Dutta and Li, 2017)	Reward-based			x	
Crosetto & Regner (2018)	Reward-based			x	
Cumming et al. (2019a)	Reward-based		x		
Cumming et al. (2019b)	Equity-based	x		x	
Eiteneyer et al. (2019)	Reward-based	x			
Hildebrand et al. (2017)	Lending-based			x	x
Jiang et al. (2018)	Lending-based	x			x
Kim & Viswanathan (2019)	Equity-based	x			
Li & Wang (2019)	Reward-based			x	
Mollick & Nanda (2016)	Reward-based	x			
Moss et al. (2018)	Lending-based	x		x	
Oo et al. (2019)	Reward-based	x		x	
Stevenson et al. (2019)	Equity-based			x	
Riar et al. (2017)	Equity-based	x			
Scheaf (2018)	Mixed			x	
Siering et al. (2016)	Reward-based			x	
Stanko & Henard (2017)	Reward-based			x	
Vismara (2018)	Equity-based	x			
Walthoff-Borm et al. (2018)	Equity-based			x	
Hsieh et al. (2017)	Reward-based			x	
Saxton & Wang (2014)	Donation-based		x		
Thies et al. (2016)	Reward-based	x		x	

Table 4. Literature Synthesis

(1) Crowd or capital-giver perspective

Based on our literature review, the perspective of capital-givers from the crowd has been approached by only few scholars. Allison et al. (2015) and Moss (2018) discovered herding behavior based on narratives or the use of certain linguistics in equity-based (Allison *et al.*, 2015) and lending-based (Moss *et al.*, 2018) crowdfunding environments. In addition, Riar (2017), Vismara (2018) and Kim & Viswanathan (2019) showed that, based on their experience level, capital-givers behave different in the funding decision making process and that actions of experienced investors can also initiate herding behavior in equity-based crowdfunding scenarios. Another factor with influence on the funding success of projects in reward-based crowdfunding scenarios is the social capital of project initiators and the integration of capital-givers into the project activities (Thies, Wessel and Benlian, 2016; Eiteneyer, Bendig and Brettel, 2019; Oo *et al.*, 2019). Mollick & Nanda (2016) compared the opinion of experts in the field of arts with the opinion of capital-givers from the crowd based on their funding activities. Interestingly, in most of the cases the crowd and experts agreed when it came to the decision for funding. In addition to these factors, Cumming et al. (2019b) discovered that in equity-based crowdfunding a higher separation between ownership and control rights is especially important to capital-givers, since it lowers the probability of funding success, the likelihood of attracting professional investors and the probability of long-run success.

(2) Platform perspective

Current literature rarely focusses on the platform perspective. As a result, current design principles on platforms are mainly driven by practice. A notable examination of reward-based platform characteristics has been done by Burtch et al. (2018). They analyzed the role of the funding mechanism on crowdfunding platforms (i.e., all-or-nothing vs. keep-it-all) and were able to show that the all-or-nothing mechanism (where the project initiator will only receive the allocated funds, if he reached the defined funding goal) lead to a potential reduction in herding behavior. Adding to this platform insights, Cumming et al. (2019a) show the positive impact of platform initiated due diligence checks on reward-based crowdfunding scenarios. They find that due diligence is associated with higher percentage of successful campaigns, more

fund contributors, and larger amount of capital raised on platforms (Cumming, Johan and Zhang, 2019). Apart from the already mentioned causes of herding behavior on the project level, the characteristics of crowdfunding platforms can also promote herding behavior among capital givers. Jiang et al. (2018) were able to show the positive influence of the platforms' market share and the cumulative amount funded towards herding behavior. However, the time of operation of a crowdfunding platform is negatively linked with the chances of the herding behavior (Jiang *et al.*, 2018). In addition, they find that government regulatory events weaken the magnitude of the herding effect, suggesting that more information disclosure and stricter operation standards reduce the value of observational learning (Jiang *et al.*, 2018). Another interesting impulse is set by the research of Saxton et al. (2014) as they show how social networking applications (i.e., Facebook, Twitter) have the potential to step into the classic intermediary role of donation-based crowdfunding platforms.

(3) Project (initiator) perspective

Existing research that was identified and analyzed in this literature review covers mostly project or project initiator characteristics with influence on the funding success of crowdfunding project. The discovered variables of the presentation of a crowdfunding project reach from its general presentation with information about risk (Ahlers *et al.*, 2015), through narrative or linguistic details (i.e., use of specific wording) in the presentation (Allison *et al.*, 2015; Siering, Koch and Deokar, 2016; Moss *et al.*, 2018) until the level of innovativeness of the project (Chan and Parhankangas, 2017; Oo *et al.*, 2019). Furthermore, project characteristics play an important role during the funding process. Several authors point out the importance of social capital of a project, especially in the early stage of the funding process, in order to attract the first capital-givers and to gain trust (Colombo, Franzoni and Rossi-Lamastra, 2015; Siering, Koch and Deokar, 2016; Buttice, Colombo and Wright, 2017). Also, the timing of the pledges plays a central role, as projects with high numbers of participants at an early stage of the funding process turn out to be more successful (Li and Wang, 2019). Interestingly, project or more precisely project initiators tend to fund their own project, either in the early stage of the funding process or when it comes to closing the gap towards the funding goal when it comes to

reaching the defined funding goal (Hildebrand, Puri and Rocholl, 2017; Crosetto and Regner, 2018). Both options have a positive impact on the funding success. Besides the activities of project initiators, the characteristics of them also has an influence on the funding success of their projects. The prior crowdfunding experience (Courtney, Dutta and Li, 2017), perceived passion (Oo *et al.*, 2019), openness towards the crowd (Stanko and Henard, 2017) and amount of crowd-interaction (Saxton and Wang, 2014; Thies, Wessel and Benlian, 2016; Scheaf *et al.*, 2018) of project initiators are variables with positive impact on the projects' success. Despite the identified positive and supportive factors, Walthoff-Borm *et al.* (2018) found that equity-based crowdfunding is often a last resort for a project's funding and offered projects are often less profitable and have higher debt levels than comparable projects in more traditional financial sources (i.e., professional private equity).

(4) Legal perspective

Only very few scholars focus on the legal environment of crowdfunding. Based on their identified positive impact of government regulatory events Jiang *et al.* (2018) suggest more rules on information disclosure and stricter operational standards. Furthermore, Hildebrand *et al.* (2017) discover that origination fees in lending-based crowdfunding scenarios are bizarrely connected with higher perceived project or loan quality.

3.6 Discussion

3.6.1 Research Agenda

Crowdfunding research with focus on success factors is a growing and vivid field of research. Despite a growing number of publications on crowdfunding success factors, this literature review reveals three main research pitfalls of the published results. First, nearly every identified paper presents results that are based on a single platform analysis. Second, only mostly directly observable and measurable project characteristics have been observed. Third, many of the investigated papers lack operational or managerial perspectives and complementary implications for platforms or project initiators based on the presented results. Considering the

complexity and context-sensitivity of crowdfunding we define four research streams based on the findings of our literature review.

When defining success factors in the field of crowdfunding, the crowdfunding project with all its characteristics is an obvious unit of analysis and has been investigated by many scholars. However, detailed insights that reach beyond directly observable or measurable variables are still missing. First steps in this direction have been taken by Chan & Parahankangas (Chan and Parhankangas, 2017) by analyzing the level of innovativeness and its impact on funding success. Another interesting starting point to continue this direction of research can be the theory of signaling in the field of crowdfunding (Ahlers *et al.*, 2015). So far there is only very limited knowledge about factors that go beyond directly observable factors that seem to play essential roles in the field of crowdfunding. For example, the reward-based platforms Kickstarter or Indiegogo regularly host success crowdfunding projects with extraordinary levels of entertainment, creativity, fun or hedonic value. Future research should address these variables that are known to play a role in the field of traditional finance or banking (i.e., professional investors) in order to define further explanations for funding success. Combined with the existing findings on success factors in crowdfunding this could lead to an even more thorough understanding on what differentiates successful from unsuccessful crowdfunding projects.

Another obvious stream of research should address the role of crowdfunding platforms that has so far only been analyzed by very few scholars. The crowdfunding platforms play a central role in the crowdfunding process by allowing project initiators to interact with a large number of capital-givers in a (cost) effective manner. First researchers indicate the need for a detailed analysis of crowdfunding platforms in each type of crowdfunding (Saxton and Wang, 2014). As the intermediary, one central task of the platform is to provide a crowd of capital-givers to project initiators. Following this thought, further research should investigate on how platforms can motivate capital-givers to participate the funding process of crowdfunding projects. At the same time platforms need to attract compelling projects and offer suitable tools to present themselves towards the crowd. Furthermore, the crowdfunding platforms are responsible for operational processes during and potentially after the funding

process (i.e., payout of collected funding), as well as ensuring legal compliance for both project and capital givers. We propose that further research is needed in order to clarify the different characteristics and directions of crowdfunding platforms.

As stated above, the legal environment of crowdfunding is only analyzed by very few scholars although it is very likely, that legal requirements have direct influence on the funding success of a crowdfunding project (Bhattacharjee *et al.*, 2011; Cumming, Johan and Zhang, 2019). The fast development of the phenomenon crowdfunding could be the reason that only few scholars focus on legal aspects of crowdfunding. A first step in this research stream could be a legal grounding of the different types of crowdfunding and comparisons to traditional sources of finance. In addition, the legal requirements or the legal framework for platforms, projects and project initiators (i.e., pre and post funding) and capital-givers (i.e., protection for individual, non-professional capital-givers) provide complex and uncovered areas for future research.

Lastly, the characteristics of capital-givers from the crowd have mostly been defined based on results of analyses of crowdfunding projects. This first approach towards a better understanding of the behavior in the funding decision process should be analyzed further. It is very likely, that not every behavioral variable is measurable through project characteristics and thus, important insights on capital-giver behavior might remain uncovered. As a result, the investigation of capital-givers and their motivation as well as actions beyond taking a funding decision (e.g., social interaction) are interesting fields for future research.

3.6.2 Limitations

This systematic literature review chapter is facing two mentionable limitations. First, only scientific literature was analyzed. As a result, this chapter lacks insights from the fast developing and changing practice. Second, only literature with a direct link to the term crowdfunding has been investigated as the search strings only contained “crowd” or “crowdfunding”. The area of crowdfunding overlaps with other research streams that have not explicitly been considered (e.g., peer to peer lending, donations). It is likely, that some of the presented key issues are also addressed or enhanced by other research streams. Further research is needed in order to better

integrate these streams with our results and to create a better understanding on success factors in the field of crowdfunding.

3.7 Conclusion of the Chapter

In summary, the research in the field of crowdfunding success factors is vivid but still limited, despite its potential and advantages in comparison to traditional sources of funding. This literature review presents the existing body of literature on crowdfunding success factors. Our work provides an initial framework with the key perspectives of crowdfunding that helps to further develop a theoretical in-depth understanding of success factors in the field of crowdfunding. Besides, our investigation points out pitfalls of existing research and suggests streams for future research.

4 Creative and Hedonic Experiences in Crowdfunding

This chapter addresses the second research questions of the dissertation and is concerned with creative or hedonic characteristics of crowdfunding projects and their effect of these on the funding success. The chapter presents the results of a quantitative study that examined creative and hedonic experiences caused by crowdfunding projects and how they influence funding behavior of the crowd.

In this chapter, section 4.1 explains motivations and objectives of the conducted study in detail. In section 4.2, we will outline related work with focus on signaling in the domain of crowdfunding. The theoretical basis for our hypotheses is defined in section 4.3, followed by the methodology of the analysis in section 4.4. Subsequently, the results are presented in section 4.5. Finally, section 4.6 includes a discussion as well as theoretical and practical implications. Section 4.7 outlines limitations of the study and potential areas for future research. The chapter ends in section 4.8 with a conclusion.

4.1 The Potential of Creative and Hedonic Experiences in Crowdfunding

During the last years, crowdfunding has gained attention as an alternative source of funding for a variety of projects. The roots of crowdfunding can be found among creative and artistic projects (Agrawal, Catalini and Goldfarb, 2014). By now, crowdfunding has become a viable funding alternative for start-ups (Mollick, 2014). Instead of drawing on friends and family, bank loans or venture capital, project initiators can raise capital through a public open call to activate potential capital-givers from a crowd of Internet users (Kleemann, Voß and Rieder, 2008).

Although crowdfunding differs from such traditional funding options in many aspects, initiators of crowdfunding projects face similar problems when convincing capital-givers to commit financial resources (Ahlers *et al.*, 2015). A growing number of crowdfunding platforms and projects and, thus, a bigger choice for capital-givers to allocate funds make it increasingly difficult for initiators of crowdfunding projects to differentiate themselves from each other. As a result, it is crucial for projects to signal their values towards the crowd.

The investment decision-making process of capital-givers is motivated by utilitarian and hedonic value. While utilitarian value is related to functional motives, hedonic value aims towards creative or novel and intense or emotional experiences. Capital-givers' search for hedonic value in investment opportunities can be attributed to the phenomenon of sensation seeking (Nagy and Obenberger, 1994; Statman, 2004). Sensation seeking can be observed among professional investors and has its origin in consumer behavior research (Babin, Darden and Griffin, 1994). The impact of a crowdfunding project's potential utilitarian value on its funding success has been examined by multiple authors. For example, the impact of the geographic location or the amount of social capital (social media followers, network) of a project (Greiner and Wang, 2010; Agrawal, Catalini and Goldfarb, 2014).

By contrast, the impact of hedonic value has hardly been addressed (Giudici, Guerini and Rossi Lamastra, 2013; Agrawal, Catalini and Goldfarb, 2014; Mollick, 2014). The problem of focusing on the utilitarian value of crowdfunding projects is that projects also tend to be influenced by hedonic value. While utilitarian value is generally more associated with economically driven capital-givers, sensation seeking capital-givers may be more responsive towards hedonic value (Nagy and Obenberger, 1994; Sullivan and Miller, 1996; Statman, 2004). For example, on the crowdfunding platform Kickstarter, project initiator Zack Brown collected more than 55,000 USD with his project about making potato salad.

Utilitarian value, mostly consisting of directly observable data, as the influencing factor does not allow us to explain the enormous success of this and other similar projects. Existing research strongly focuses on directly observable data, i.e., the geographic location or number of interactions between capital-givers and project initiators, often generated from only one single crowdfunding platform, resulting in limited generalizability.

Consequently, this study investigates how the ability of crowdfunding projects to invoke hedonic value influences their funding success. Based on signaling theory and consumer behavior literature, we conceptualize sensation seeking as the creative and hedonic experiences of a capital-giver that have been invoked by the characteristics of a crowdfunding project. Applying the Consensual Assessment Technique, we

apply a large-scale panel of 54 experts that rate the creative and hedonic cues of 108 projects from three different types of crowdfunding. Our results indicate that project success in each crowdfunding type is positively associated with distinct patterns of sensation seeking. Our results contribute to the crowdfunding literature by providing first evidence on the influence of hedonic value on the funding success of a crowdfunding project.

4.2 Influencing factors on Crowdfunding Behavior

Existing crowdfunding research has already investigated a large variety of signals within presentations of crowdfunding projects listed on different crowdfunding platforms. These projects differ from each other, e.g., by their individual purpose, funding amount or presentation. Thus, it can be noted that crowdfunding projects are in competitive situations when it comes to attracting contributions of capital-givers. Beside signals with utilitarian values of crowdfunding projects, such as geographical location, social interactions (i.e. social media fans) or contribution patterns (i.e., herding), hedonic values remain mostly unobserved (see Table 5). Additionally, most observations and results originate from single platform observations and lack generalizability.

Author		Observed factors	Focus of study	Platform scope
Hedonistic	Agrawal et al. (2011)	Geographic location, social capital	Utilitarian value	Single platform
	Burtch et al. (2013a)	Contribution behavior through prior contributions	Utilitarian value	Single platform
	Mollick (2014)	Project quality based on social capital, geographic location, post-funding activities	Utilitarian value	Single platform
	Tirdatov (2014)	Rhetorical techniques	Hedonic value	Single platform
	Kuppuswamy & Bayus (2017)	Dynamics of individual contributions based on timing	Utilitarian value	Single platform
	Block et al. (2018)	Contribution patterns based on timing of contributions and amount of project updates	Utilitarian value	Single platform
	Chan & Parhankangas (2017)	Incremental and radical innovativeness	Hedonic value	Single platform
	Davis et al. (2017)	Product creativity and creators' positive affective	Hedonic value	Single platform
	Da Cruz (2018)	Contribution patterns based on product release	Utilitarian value	Single platform
	Courtney et al. (2017)	Amount of project updates	Utilitarian value	Single platform
	Scheaf et al. (2018)	Patent ownership and media coverage	Utilitarian value	Single platform
	Ceballos et al. (2017)	Project initiators' characteristics	Hedonic value	Single platform
	Murray et al. (2018)	Project initiators' experience	Hedonic value	Single platform
	Allison et al. (2017)	Narrative variables and language	Hedonic value	Single platform
Altruistic	Jian and Usher (2011)	Contribution behavior based on project content	Hedonic value	Single platform
	Ly and Mason (2012)	Competition between projects	Utilitarian value	Single platform
	Meer (2014)	Price elasticity, Competition between projects	Utilitarian value	Single platform
For-Profit	Ahlers et al. (2012)	Project quality based on financial roadmaps, external certification, governance, risk	Utilitarian value	Single platform
	Burtch et al. (2013b)	Geographic location, cultural difference	Utilitarian value	Single platform
	Geiner and Wang (2010)	Social capital from projects' and initiators' perspective	Utilitarian value	Single platform
	Herzenstein et al. (2011)	Herding behavior	Utilitarian value	Single platform
	Herzenstein et al. (2011)	Storytelling	Hedonic value	Single platform
	Larrimore et al. (2011)	Rhetorical techniques	Hedonic value	Single platform
	Lin et al. (2013)	Social capital	Utilitarian value	Single platform
	Schwiebacher & Larralde (2010)	One in-depth project analysis	Utilitarian value	Single platform
	Zhang and Liu (2012)	Herding behavior	Utilitarian value	Single platform
	Li et al. (2017)	Perceived entrepreneur's passion and product innovation	Hedonic value	Multiple platforms
Multi	Ordanini et al. (2011)	Motivation of initiators and investors	Utilitarian value	Multiple platforms
	Belleflamme et al. (2013)	Cluster analysis based on investors' preferences and initiator's characteristics	Utilitarian value	Multiple platforms
	Packard & Jiang (2017)	Project initiator's personal knowledge or expertise	Hedonic value	Experiment setting

Table 5. Previously observed factors influencing behavior in crowdfunding

Most existing research focuses on directly observable signals addressing utilitarian value, while additional signals that convey hedonic characteristics of the projects often remain unanalyzed. In general, studies focusing on hedonic value completely neglect the phenomenon of sensation seeking. Furthermore, most publications report results from single crowdfunding platforms, resulting in peculiar findings to one specific type of crowdfunding.

4.3 Theory and Hypotheses Development

4.3.1 Investment decision making and sensation seeking

The behavior of individuals is driven by a wide range of motivations mainly targeted by different values of activities, goods or decisions. This circumstance is based on the results of consumer behavior research in which utilitarian and hedonic value explain consumer choices (Babin, Darden and Griffin, 1994). Functional motives are satisfied by the utilitarian value (Babin, Darden and Griffin, 1994; Zuckerman, 1994). Utilitarian value can be described as the need to have a certain product or service. For example, a person needs a new car to transport their family. The person's buying-decision is mostly driven by the functional motive to have a vehicle. However, such decision-making processes of individuals are also driven by hedonic value. Hedonic value includes cues for creative, novel and intense emotional variables. It aims towards sensation seeking, a personality trait that describes an individual's desire for creative or novel and intense, emotional or hedonic experiences (Zuckerman, 1994). This means that individuals' behavior goes beyond the utilitarian experience of decision-making and includes the desire for creative, novel and intense emotional experiences. Continuing the example from above, the decision of the person to buy a "Porsche" would go beyond functional motives of having a car because of additional characteristics, i.e., brand image, that aim towards sensation seeking behavior.

The constructs of utilitarian and hedonic value as drivers of decision-making have also been investigated in the field of finance. Previous research indicates that investors' behavior is not only motivated by low risk and high returns as utilitarian values of investment decisions. Beside these utilitarian values, professional investors are also searching for additional values aiming towards status, emotions or social

responsibility (Statman, 2004). This search can be attributed to the phenomenon of sensation seeking that has been proven to be existent among professional investors and leads to more frequent and riskier trading activities (Grinblatt and Keloharju, 2009). Sensation seeking describes an individual's desire for creative and hedonic experiences (Babin, Darden and Griffin, 1994; Zuckerman, 1994). For instance, in the field of crowdfunding, creative experiences can be linked to the degree of a project's creativity. Similarly, hedonic experiences can be linked to a project's potential to engage capital-giver's fantasies, feelings and fun (Holbrook and Hirschman, 1982).

Additionally, the vast majority of capital-givers in crowdfunding are private individuals (Belleflamme, Lambert and Schwienbacher, 2013). In comparison to professional investors, private individuals can only invest relatively modest amounts of money (Malmendier and Shanthikumar, 2007; Ahlers *et al.*, 2015) and usually tend to not have comparable knowledge and resources to professionally value investment projects (Freear, Sohl and Wetzel Jr, 1994) and, thus, might be more responsive to additional factors in their decision-making processes. Previous research indicates the importance of factors beyond utilitarian value, such as emotional feelings aroused by the hedonic value of a firm's product, among private investors in more classical investment scenarios (Nagy and Obenberger, 1994).

4.3.2 Creative experiences

Research and practice agree that crowdfunding offers the means to the funding of innovative and creative projects that usually have restricted access to other sources of finance. However, there is still no universal definition of creativity (White and Smith, 2001), but there is consensus that creative solutions are generally characterized as being new and useful (Plucker, Beghetto and Dow, 2004). Novelty is often defined as something unique or rare. In this context, new projects have not been expressed before (MacCrimmon and Wagner, 1994; Goepel, Hölzle and zu Knyphausen-Aufseß, 2012). A closely related trait of novelty is paradigm relatedness. Paradigm related ideas are not only new but also surprising, imaginative, uncommon or unexpected (Dean *et al.*, 2006) and many researchers see originality as the most important facet of creativity (Besemer and Quin, 1999). Usefulness is the extent to

which the idea responds to or solves a problem that is tangible and vital (Amabile, 1996; Dean *et al.*, 2006; Frederiksen and Knudsen, 2017). This dimension is also named as a project's relevance (Kristensson, Gustafsson and Archer, 2004; Dean *et al.*, 2006). In this context, creativity can be seen as a process where a combination of these associative elements are forming something new (Mednick, 1962).

In crowdfunding, capital-givers can experience creativity through signals and cues in various presentations of projects. These creative experiences invoked by projects can be triggered by three different sources: novelty, paradigm relatedness and relevance. Capital-givers expect high levels of all three dimensions to be attracted to invest. Signaling theory suggests that capital-givers respond to cues that can be supported by these attributes (Spence, 1973; Kunz, Bretschneider and Erler, 2017). In pursuance of novelty, project initiators need to signal the newness or rarity of their projects. Projects descriptions need to accentuate on novelty to trigger the creative perception of capital-givers (MacCrimmon and Wagner, 1994). The uniqueness of projects represented by their paradigm relatedness plays a special role in the crowdfunding process, since capital-givers usually have a tremendous choice between different projects. Still, it is also important to create cues on the relevance of projects by providing a beneficial or attractive solution that solves a problem or responds to personal needs with a feasible plan of execution. Subsequently, projects with higher level of creative experiences should be more likely to reach their funding goal. In order to measure the impact of creative experiences on a crowdfunding project, we define our first hypothesis as follows:

H₁: Successfully funded crowdfunding projects provide a higher degree of creative experiences than not successfully funded projects.

4.3.3 Hedonic experiences

Hedonic experiences describe the sentimental dimension in the investment decision-making process. These experiences satisfy capital-givers' need for change and excitement (Zuckerman, 1994). Besides creative experiences, crowdfunding projects provide an additional dimension of sensation seeking (Wappler, 2003) called hedonic experiences to attract capital-givers, as hedonic motivation has an impact on

investment decisions (Sullivan and Miller, 1996; To, Liao and Lin, 2007; Lin and Boh, 2019).

Following the two paradigms of web 2.0 and wisdom of crowd, the enrichment of utilitarian processes with hedonic elements became common practice in order to increase intrinsic motivation and thus attractiveness for participation (Dahan and Hauser, 2002; Blohm and Leimeister, 2013; Chou, Yang and Jhan, 2015). Examples for the implementation of hedonic elements in utilitarian environments are tools for innovation management (Franke and Piller, 2004), like idea competitions (Leimeister, Huber and Bretschneider, 2009; Adamczyk, Bullinger and Möslein, 2012) or online communities (Hutter *et al.*, 2011; Blohm *et al.*, 2013). The implementation of hedonic elements provides a self-fulfilling and intrinsic value that aims to generate perceived fun and by that a hedonic experience (Heijden, 2004). Further, it increases the confidence in the own capabilities of successfully making decisions, which is called self-efficacy (Haas *et al.*, 2013). Hedonic experiences can be defined as an additional incentive of studying crowdfunding projects as it satisfies hedonic motives (Sullivan and Miller, 1996; Allen and McGoun, 2002).

In the domain of crowdfunding, a project's hedonic experiences may have three origins. These hedonic elements include fantasies, fun and feelings (Elms, 1966; Holbrook and Batra, 1987; Waterman, 1993; Allen and McGoun, 2002). The elements can cause participation cues among capital-givers (Spence, 1973; Kunz, Bretschneider and Erler, 2017). One obvious hedonic element is fantasies, e.g., the prospective use of a funded product (Elms, 1966). Furthermore, fantasies contribute to attraction (Higgins, 2006). The presentation of how initiators believe in their projects and how they involve capital-givers can be an example for fantasies in crowdfunding projects. Another example is the project's ability to engage the capital-giver's imagination of influencing and shaping the project by participating. But the experience of fantasies alone is not sufficient to describe the degree of perceived hedonic experiences. In crowdfunding projects, fun can be linked to the project's ability to create a sense of enjoyment, pleasure or entertainment for capital-givers (Waterman, 1993). In order to provide hedonic experiences, capital-givers' motivational needs should be addressed by approaching feelings, like stories about

the project (Holbrook and Batra, 1987; Zhang, 2008). Feelings serve as an energizing motive to direct a certain behavior, like an investment decision (Reeve, 2014). Thereby, feelings are able to dominate utilitarian motives (Maslow, 2013). The better these elements are developed, the greater the hedonic experiences for capital-givers (Allen and McGoun, 2002). This can be explained by the assumption that the implementation of hedonic elements leads to a greater satisfaction of hedonic and altruistic motives and higher perceived fun by providing an intrinsic value (Waterman, 1993; Heijden, 2004).

The degree of using these hedonic elements as cues or signals has an impact on investment decisions of capital-givers and thus on the funding success of crowdfunding projects (Sullivan and Miller, 1996; To, Liao and Lin, 2007; Lin and Boh, 2019). Hence, greater hedonic experiences should lead to higher participation levels of capital-givers. In order to prove the positive impact of hedonic experiences on the funding success of crowdfunding projects, we define our second hypothesis as follows:

H₂: Successfully funded crowdfunding projects exhibit a higher degree of hedonic experiences than not successfully crowdfunding projects.

4.4 Methodology

In order to test our two hypotheses, we collected a comprehensive data set including crowdfunding projects from different crowdfunding platforms. We then assessed the data through an adaption of Amabile's (1996) consensual assessment technique (CAT) and analyzed the data by applying multivariate analyses of covariance (MANCOVA).

4.4.1 Data Collection

We collected data on a total of 108 crowdfunding projects from 18 different crowdfunding platforms. In order to create a balanced sample, we chose three successful and three unsuccessful projects from each platform. According to the motivation of people engaging in crowdfunding (Belleflamme, Lambert and Schwienbacher, 2013), we defined selection criteria that were coherent with and

generally applicable to crowdfunding platforms of different types of crowdfunding. This led us to six projects per platform (see Table 6).

Successfully funded	1	Project from category: most successfully funded
	2	Project from category: most recent
	3	Project from random choice
Not successfully funded	4	Project promoted on Website or by other successful campaigns
	5	Project from category: most recent
	6	Project from random choice

Table 6. Selection criteria for crowdfunding projects

Initially, we identified over 500 crowdfunding platforms. Crowdfunding platforms have been considered for further analysis if they possessed a working, publicly accessible English or German website and active business operations during the time of research (August 2015 to July 2016). These criteria applied to 254 different crowdfunding platforms. To ensure a sufficient and sound sample size, we chose six popular crowdfunding platforms from each type of crowdfunding to create an equally balanced data set with 108 projects in total (see Table 7).

Platform	Project Example
Hedonistic	
Kickstarter, Indiegogo, Startnext, RocketHub, Crowdfunder, Vision bakery	<i>Pebble: E-Paper Watch</i> : Smartwatch for iPhone & Android
Altruistic	
Dreambank, Fundly, Betterplace, Socialfundrers, Globalgiving, Fundrazr	<i>Hurricane Sandy Disaster Relief</i> : Disaster relief for hurricane victims
For-Profit	
Appbackr, Crowdcube, Econeers, FundedByMe, AppsFunder, seedmatch	<i>AOTerra</i> : Energy supply for heating by waste heat of servers

Table 7. Investigated Crowdfunding platforms

4.4.2 Consensual Assessment Technique and Expert Panels

We applied the consensual assessment technique (Amabile, 1996; Baer, Kaufman and Gentile, 2004) to rate the projects' ability to invoke creative and hedonic experiences. The consensual assessment technique is considered as the gold standard to assess the creativity of artifacts (e.g., crowdfunding projects). In our case, we defined three expert panels with 18 members each in order to rate the chosen projects. The first panel consisted of scientists with a track record in the domain of crowdfunding. The

second panel included capital-givers that had participated in at least one project. The third panel comprised project initiators that had started at least one crowdfunding project. Each of the 54 experts assessed three successful and three unsuccessful projects from one platform in a random order. Each group of experts was asked to independently rate the level of creative and hedonic experiences a given project was able to invoke using defined items.

4.4.3 Variables and Measures

Our unit of analysis is reflected by single crowdfunding projects. In order to avoid problems of common method variance, data for the independent (i.e., creative and hedonic experiences) and the dependent variables (i.e., project success) has been derived from independent sources (Sharma, Yetton and Crawford, 2009).

Creative and hedonic experiences were measured by three items that were rated on a scale from 1 (lowest) to 5 (highest). The dimension creative experiences consists of the items novelty, paradigm relatedness and relevance (MacCrimmon and Wagner, 1994; Plucker, Beghetto and Dow, 2004; Dean *et al.*, 2006). Hedonic experiences consists of the items fantasies, fun and feelings (Elms, 1966; Holbrook and Batra, 1987; Waterman, 1993). Table 8 provides an overview of the used items. For each variable, we aggregated the single items using the arithmetic mean. The intra-class-correlation of the experts was checked using Cronbach's Alpha that had an average of 0.881 (platforms groups: Hedonistic: 0.855, Altruistic: 0.935, For-Profit: 0.890; expert panels: Scientists: 0.907, Capital-givers: 0.843, Initiators: 0.851), which indicates good agreement for both dimensions (Shrout and Fleiss, 1979).

Variable	Measures	Description	Source
Creative experiences	Novelty	N1: The project is novel.	Consensual assessment technique (CAT)
		N2: The project is unique or at least rare.	
		N3: The project is imaginative, uncommon or surprising.	
	Paradigm relatedness	P1: The project is revolutionary.	
		P2: The project is radical.	
		P3: The project is trendy.	
	Relevance	R1: The project has a clearly described customer benefit.	
		R2: The project enables the initiator to realize an attractive market potential.	
		R3: The project effectively solves a customer problem.	
Hedonic experiences	Fantasies	F1: The project has an interesting story that creates the fantasy of being part of it.	
		F2: The project creates a varied and diverse fantasy of participating.	
		F3: The project makes the crowd feel as being part of the project team.	
	Enjoyment	E1: The project creates a strong sense of enjoyment	
		E2: The project gives a great pleasure.	
		E3: The project is entertaining.	
	Feelings	A1: The project is emotional	
		A2: The project is exciting.	
		A3: The project is activating and emotionally arousing.	
Funding success	Project has achieved the requested funding goal within the defined time limit.	Archival data	
Funding goal	The requested amount by the project initiators in USD.		

Table 8. Variables and measures

Funding success was defined as achieving the funding goal within the defined time limit. This data was directly collected from the chosen crowdfunding platforms as a binary dummy variable (0 = not successfully funded; 1= successfully funded).

As control variable, we included the funding goal in USD, i.e., requested amount of funding by initiators, as this variable highly differs between the different types of crowdfunding and influences the success of crowdfunding projects (Burtch et al., 2013a; Mollick, 2014). Table 9 provides descriptive statistics and correlations.

Variable	Measures	Min.	Max.	Mean	SD	1.	2.	3.	4.	5.	6.
Creative experiences	1. Novelty	1.11	4.74	2.73	0.77	-					
	2. Paradigm relatedness	1.11	4.11	2.42	0.63	0.74**	-				
	3. Relevance	1.22	4.67	2.93	0.70	0.43**	0.56**	-			
Hedonic experiences	4. Fantasies	1.11	4.39	2.62	0.68	0.60**	0.67**	0.37**	-		
	5. Enjoyment	1.00	4.07	2.31	0.69	0.53**	0.59**	0.36**	0.79**	-	
	6. Feelings	1.00	4.63	2.62	0.73	0.45**	0.51**	0.25**	0.82**	0.70**	-
Funding goal	USD (in 1,000)	0	1.000	78.31	172.51	0.06	0.25	0.19	0.02	-0.04	-0.10

** Significant at the 0.01 level (2-tailed), Pearson Correlation (n=108)

Table 9. Descriptive statistics & Correlations

4.5 Results

To test whether projects that invoke higher levels of creative and hedonic experiences have a higher probability of getting funded, we apply MANCOVA. This method is able to control the correlation between creative experiences and hedonic experiences as well as the control variables funding goal and funding mechanism (winner takes all vs. keep-it-all principle). Our analysis proceeds as follows: First, we investigate our two hypotheses using our creative and hedonic experiences measures. In addition, we explore differences between successfully and not successfully funded projects between the three different types of crowdfunding platforms. Finally, we analyze differences between successfully and not successfully funded projects on the ratings of the three defined expert panels. Since the population on the analysis of platform groups and expert panels became considerably smaller, the basic requirements for MANCOVA have been double-checked through Kruskal-Wallis tests and lead to very similar results.

4.5.1 Main Analysis: Hypothesis Testing

Our analysis indicates higher values of creative and hedonic experiences in successfully funded projects than in not successfully funded projects ($p \leq 0.05$). Thus, we can accept H_1 and H_2 (see Table 10). We further investigated the significance of each single indicator to ensure their relevance. The results did not show any differences compared to the aggregated analysis.

Dimension	Dependent variable	Funded	Not funded	F-Value
		Mean (SD)	Mean (SD)	
Creative experiences	Novelty	2.937 (0.739)	2.572 (0.750)	8.109**
	Paradigm relatedness	2.630 (0.596)	2.130 (0.596)	14.621**
	Relevance	3.099 (0.704)	2.761 (0.651)	6.852**
Hedonic experiences	Fantasies	2.836 (0.635)	2.396 (0.655)	12.472**
	Enjoyment	2.512 (0.680)	2.105 (0.635)	10.328**
	Feelings	2.908 (0.681)	2.337 (0.678)	19.368**

df CREATIVE / HEDONIC EXPERIENCES = 2; df (error) CREATIVE / HEDONIC EXPERIENCES = 105
df = Degrees of Freedom; SD = Standard Deviation; ** = Significant at the 0.05 level

Table 10. MANCOVA Results

4.5.2 Sensitivity Analysis: Platforms Types

As a next step, we compared the degree of creative and hedonic experiences among projects from popular Altruistic, Hedonistic and For-Profit crowdfunding platforms. We explore differences between successfully and not successfully funded projects in these different types of crowdfunding.

Hedonistic Crowdfunding: Successfully funded projects that were presented on hedonistic crowdfunding platforms invoke a significantly higher level of enjoyment ($p < 0.01$) and feelings ($p=0.015$) that cause hedonic experiences. In terms of creative experiences, successfully funded projects show a significantly higher level of Novelty ($p < 0.05$).

Altruistic Crowdfunding: Altruistic crowdfunding projects show only little responsiveness towards creative and hedonic experiences. Only the indicators of paradigm relatedness ($p < 0.05$) and feelings ($p < 0.05$) show significant differences between successfully and unsuccessfully funded projects.

For-Profit Crowdfunding: In terms of creative experiences, successfully funded For-Profit projects show a significantly higher degree of paradigm relatedness ($p < 0.05$). In addition, fantasies ($p < 0.05$) and feelings ($p < 0.01$) show significantly higher levels for successful projects.

Furthermore, we investigated the results of each expert panel through a sensitivity analysis that showed robust results.

4.6 Discussion and Implications

Both hypotheses have been accepted and the results provide evidence for the impact of creative and hedonic experiences on the funding success of crowdfunding projects with consistency throughout all types of crowdfunding and expert panels. First, we were able to give significant proof of the influence of sensation seeking in terms of a project's ability to invoke creative and hedonic experiences funding success in crowdfunding. As a next step, we continued our research approach to compare these effects among different types of crowdfunding. Interestingly, the impact of creative and hedonic experiences differs between each type of crowdfunding. The results also enable us to identify three different sensation seeking types of capital-givers in the field of crowdfunding with different investment focuses: trend-based, enjoyment-based and activity-based sensation seeking.

In all three types of crowdfunding, cues for Feelings seem to be a must-have in every crowdfunding presentation in order to attract capital-givers. Similar to the findings of the phenomenon of sensation seeking in the field of professional investing, capital-givers from the crowd seem to also be driven by Feelings invoked by a crowdfunding project. Without sending cues and signals towards this variable in the investment decision making process of capital-givers, crowdfunding projects seem to be significantly less successful.

On hedonistic crowdfunding platforms, capital-givers strive for fun and entertainment and allocate their funds towards projects with the strongest signals of these elements. Capital-givers on hedonistic platforms seem to have a strong focus on offered rewards that could be linked to the dimensions of Novelty, Feelings and Enjoyment. Consequently, the sensation seeking behavior of capital-givers on hedonistic platforms is strongly driven by enjoyment and additionally triggered by novel project ideas and can be described as enjoyment-based. Enjoyment-based sensation seeking focused on fun, where capital-givers seek enjoyment, emotional arousal and unique, uncommon or new ideas as impulses or stimuli for investments.

Capital-givers on altruistic platforms are attracted by projects with mesmerizing purposes and cues that approach their feelings. Projects that signal these two elements towards the crowd are more likely to be successful. Altruistic projects are influenced

by their Paradigm relatedness and Feelings. Both variables support characteristics of non-economic driven investors (non-financial motives, play role in process, socially-beneficial motivation) and can be linked to the basic traits of sensation seeking (Sullivan and Miller, 1996), more precisely trend-based sensation seeking. Trend-based sensation seeking can be described as driven by trendy and radical crowdfunding projects and is also strongly affected by feelings or emotional variables.

In addition to the elements of Altruistic crowdfunding projects, For-Profit projects have to focus on the active involvement of capital-givers. The capital-givers on For-Profit platforms are especially receptive for signals towards their own participation in the project. The success of For-Profit projects is influenced by their Paradigm relatedness, Fantasies and Feelings. Capital-givers of this type of crowdfunding may be driven by economic motivation but face limitations to professionally value the investment (Freear, Sohl and Wetzell Jr, 1994). As a result, Fantasies and Feelings significantly influence their investment decision and this imaginative variable seems to dominate their sensation seeking behavior. For-Profit projects should be configured with cues towards activity-based sensation seeking. Activity-based sensation seeking can be found among profit-oriented investors who are driven by the fantasy of participating in something new and potentially visionary. Therefore, they seek for revolutionary ideas and are also driven by their feelings.

Finally, we identified feelings and emotions as a common denominator for crowdfunding projects to attract funding. Beside other variables all three sensation seeking types are driven by their feelings or emotional variables as stimuli. This circumstance may be linked to the term 'gut feeling' of professional investors in early-stage investment settings (Huang and Pearce, 2015).

4.6.1 Theoretical implications

This chapter advances existing crowdfunding research and literature by evaluating the impact of sensation seeking in all three types of crowdfunding. Based on our results we suggest three important contributions for crowdfunding research.

First, we are able to extend existing crowdfunding research that deals with factors influencing the funding success of crowdfunding projects. We identify creative and hedonic experiences as influencing factors on the funding process through project-based content analysis. Most of the defined factors of crowdfunding projects with influence on the funding process are only grounded on analyses of projects from only one crowdfunding platform and are thus only valid for one specific type of crowdfunding (Agrawal, Catalini and Goldfarb, 2014; Kuppuswamy and Bayus, 2018). A more fine-grained approach with observation of variables from more than one crowdfunding platform was only chosen by very few scholars (Belleflamme, Lambert and Schwienbacher, 2013; Giudici, Guerini and Rossi Lamastra, 2013). Furthermore, existing research on crowdfunding success factors mostly concentrates on directly observable variables (e.g. followers/fans on social media). Our approach offers a new perspective on the influence of creative and hedonic experiences on the funding process of a crowdfunding project. Our more fine-grained approach including a balanced choice of 108 projects from different platforms and types of crowdfunding assessed by three expert panels strengthens the credibility of our findings.

Second, we contribute a typology of three different types of sensation seeking in crowdfunding: trend-based sensation seeking, enjoyment-based sensation seeking and activity-based sensation seeking. Because capital-givers in crowdfunding are generally driven by sensation seeking behavior, we identified three different categories of sensation seeking behavior within this field. Trend-based sensation seeking can be triggered by cues towards trendy and radical characteristics of the project and can mostly be found among capital givers on hedonistic crowdfunding platforms. Enjoyment-based sensation seeking can be mostly found on altruistic crowdfunding projects. Capital-givers with this behavioral trait are open towards cues that trigger on fun, enjoyment, emotional arousal and present a project as unique, uncommon or new ideas. Activity-based sensation seeking capital-givers are driven by the willingness or fantasy to actively participate in a project. This willingness to participate can additionally be anticipated by cues towards trendiness and emotionality of a project. These distinct patterns of sensation-seeking go beyond existing research that has considered capital-givers in crowdfunding as being

homogeneous and does not differentiate the effects of distinct signals such as project creativity or innovativeness across capital-givers (Courtney, Dutta and Li, 2017; Viotto da Cruz, 2018).

Third, our results extend the horizon of other project-focused research that examined utilitarian project characteristics. We were able to show that investment decision making behavior in crowdfunding is not only driven by economic drivers but also by sensation seeking. In addition, different investor types defined by Sullivan and Miller (1996) can also be partly identified in the field of crowdfunding. We also show differences in the patterns of sensation seeking between the types of crowdfunding. Finally, we extend the assumption of a project's quality being associated with the success of crowdfunding (Mollick, 2014) by analyzing projects from new angles.

4.6.2 Practical implications

For practice, our findings show the importance of creative and hedonic experiences as two dimensions with impact on investment decisions of capital-givers. Regardless of our findings, project initiators should not blindly focus on providing creative and hedonic experiences when creating crowdfunding projects. The results do not only provide valuable insights but also show different patterns of sensation seeking between the defined types of crowdfunding. Initiators of Hedonistic projects should emphasize on high levels of Novelty, Enjoyment and Feelings in project presentations. Altruistic projects should concentrate on indicating their Paradigm relatedness but also on approaching capital-givers' Feelings. This means creating emotional arousal on capital-givers (e.g. focusing on joyful elements of projects) to increase interest and to show professionalism and passion to create the desire to participate. For-Profit projects need to accentuate their Paradigm relatedness and at the same time focus on Fantasies and Feelings. In order to increase the chances of funding success, project initiators need to approach the two dimensions. In practice the crowdfunding platforms offer different frameworks and templates to present each project. This means that it is the project initiator's role to embellish the project within the given frameworks. Concretely, this involves different shaping of allowed formats (i.e. texts, images, videos). For example, if project initiators want to set cues for

Fantasies, they need to accentuate on opportunities to involve the crowd and create a specific image of the project's purpose and needs.

In addition, our results are also relevant for crowdfunding platforms that have a strong influence on the observed dimensions. Crowdfunding platforms usually offer frameworks (e.g. website design/standards) for the presentation of a project (Greiner and Wang, 2010). Crowdfunding projects and their initiators act within the boundaries of these frameworks. As a result, opportunities to foster creative and hedonic experiences are various and multifaceted but are always limited by a platform's presentation framework. Accordingly, crowdfunding platforms can benefit from our findings by adapting their frameworks such that project initiators can activate capital-givers more effectively.

4.7 Limitations and Future Research

The empirical results of this research show the impact of creative and hedonic experiences on the success of crowdfunding projects. Nevertheless, our results have to be interpreted in the light of their limitations. By choosing crowdfunding projects and participants for the panels through distinct selection criteria, we tried to eliminate the influence of unconscious cognition. Our approach of using limited but sufficient sample sizes still involves the risk of subjectivity within the assessment of the variables through expert panels in the crowdfunding process. Despite this, every project from our sample has been rated by each panel to increase reliability of our data collection. Thus, our comprehensive platform approach with all types of crowdfunding strengthens the results that should not suffer from extensive subjectivity and generalize well to the field of crowdfunding.

Our analysis shows different results between the observed types of crowdfunding and expert panels. Yet, more research is necessary to extend our findings. Our study offers various possibilities to extend our findings. For example, further investigation of the defined dimensions by conducting a rhetorical analysis of project characteristics (e.g. capital-givers comments) to maneuver towards opinion mining or a sentiment analysis. Another interesting next step could be conducting a meta-study to

synthesize and review our results by conducting dedicated interviews with stakeholder groups of the crowdfunding process.

4.8 Conclusion of the Chapter

This research with a non-economic approach towards project characteristics' influence in crowdfunding provides evidence of the impact of creative and hedonic experiences on the success of crowdfunding projects. Our broad focus with all types of crowdfunding, a diverse choice of projects and expert panels is an initial step into the analysis of non-economic variables of crowdfunding projects. Especially our methodological approach for assessing 108 crowdfunding projects from multiple platforms strengthens the validity of our findings. Our research provides important results that are valuable not only for the scientific community but also for the growing amount of project initiators and crowdfunding platforms in order to use crowdfunding more effectively.

5 Governance Mechanisms in Crowdfunding

This chapter addresses the third and last research question of the dissertation. On the basis of previous findings, this chapter focusses on how governance can be implemented in the domain of crowdfunding. Additionally, the effective use of governance mechanisms towards project success is examined through a Qualitative Comparative Analysis (QCA). Subsequently, the chapter presents the results of a study with defining the use of governance mechanisms in crowdfunding following an configurational approach.

In this chapter, section 5.1 provides details on the motivation and the objectives of the study. The following section 5.2 reveals the identified governance mechanisms in the field of crowdfunding. Based on these findings, section 5.3. explains the methodological approach of the analysis. The results of the analysis are presented in chapter 5.4. Section 5.5. includes a discussion and implications for both theory and practice. Finally, section 5.6 concludes the chapter by outlining limitations of the study and potential areas for future research.

5.1 The Need for Governance in Crowdfunding

Over the last few years, crowdfunding has become a viable source of funding for a variety of different projects. The phenomenon of crowdfunding started among creative and artistic projects and then spread to start-ups and other profit-oriented businesses (Agrawal, Catalini and Goldfarb, 2014; Mollick, 2014). Project initiators can kick-off their funding process through a public open call on a crowdfunding platform to attract potential capital-givers from a crowd of Internet users. In comparison to traditional sources of funding (like friends, family, bank loans, and venture capital), crowdfunding offers two considerable advantages: faster funding process, and risk diversification for capital-givers and capital-giver involvement ('wisdom of the crowd') (Kleemann, Voß and Rieder, 2008).

One famous example of a crowdfunding project is "Pebble", a first-generation smartwatch for iPhone and Android users that raised 10 million USD through nearly 69,000 capital-givers. Another is "Coolest Cooler", a transportable outdoor cooling device with various technical gimmicks (e.g., music speaker, bottle opener, USB-

port) that raised more than 13 million USD through a crowd of roughly 63,000 capital-givers. Both of these projects and their crowdfunding platforms enacted some of the first mechanisms of governance in order to interact with and guide capital-givers from the crowd: they told a story around their project, involved capital-givers through updates and direct communication, and offered appealing compensations for funding participation in the project. These two examples show the enormous potential of crowdfunding. However, in practice, crowdfunding projects either “receive all of their money or fail to receive much at all” (Wash, 2013).

A core element of crowdfunding are IT-based platforms that act as an intermediary and constitute the vital link between the project initiators and capital-givers. These platforms allow project initiators to interact with a large number of capital-givers in a (cost) effective manner. *Crowdfunding platforms* can be described as socio-technical systems that support interaction and contributions between the crowdfunding project and capital-givers who are willing to provide funding and to interact (Burtch, Ghose and Wattal, 2013b; Mollick, 2014; Scheaf *et al.*, 2018). Each crowdfunding platform defines the mode of interaction between project initiators and capital-givers (i.e., presentation layout, user interface, communication tools). Capital-givers from the crowd can browse and visit a range of projects on a crowdfunding platform. Crowdfunding platforms tend to focus on certain funding purposes (e.g., funding of start-ups, creative projects, real estate projects). In enable the presentation of projects, the crowdfunding platforms usually offer toolkits or templates to the project initiators seeking funding for their project. These templates need to be filled and configured accordingly by the project initiators in order to attract capital-givers, gain trust, and overcome unwanted capital-giver behavior (Mcknight *et al.*, 2011; Nussbaumer, Matter and Schwabe, 2012).

Current crowdfunding research finds crowdfunding to be inefficient in matching mechanisms between capital-givers and project initiators. The strong influence of information asymmetries between the different participants resulting in adverse selection or moral hazard (Courtney, Dutta and Li, 2017; Scheaf *et al.*, 2018), changing legal environments (Kappel, 2008; Tomczak and Brem, 2013) constitute complex challenges for project initiators, capital-givers, and crowdfunding platforms.

Besides adverse selection and moral hazard, the crowdfunding process is opposed to additional market inefficiencies. When allocating their funds to a crowdfunding project, capital-givers show different behavioral patterns, such as herding behavior (Zhang and Liu, 2012; Vulkan, Åstebro and Sierra, 2016; Kuppuswamy and Bayus, 2018), geographical biases (Burtch, Ghose and Wattal, 2013b; Agrawal, Catalini and Goldfarb, 2014), as well as storytelling and rhetorical techniques (Larrimore *et al.*, 2011; Allison *et al.*, 2017; Manning and Bejarano, 2017). The self-presentation of the project initiators (Ceballos *et al.*, 2017; Murray, Hallen and Kotha, 2018) and their interaction with the crowd (Courtney, Dutta and Li, 2017; Scheaf *et al.*, 2018) are two more factors that influence the funding decision of capital-givers. These examples show the influence of different variables with an indirect link to the quality of the crowdfunding project or its likelihood to use the collected funds as promised.

To overcome these pitfalls, literature suggests that successful projects on a crowdfunding platform make use of certain methods, tools or mechanisms, which allow for governing project initiators and capital-givers from the crowd (Belleflamme, Lambert and Schwienbacher, 2013; Burtch, Ghose and Wattal, 2013a; Mollick, 2014). We understand such governance as a system for organizing rules and processes that regulate and coordinate the behavior of project initiators and capital-givers (Misangyi and Acharya, 2014; Blohm *et al.*, 2018). In the domain of crowdfunding, the existence of governance mechanisms has only been analyzed on single mechanisms and single case analyses (i.e., data from only one platform) (Mollick, 2014; Belleflamme, Omrani and Peitz, 2015; Kraus *et al.*, 2016). As a result, the understanding of governance mechanisms and their effectiveness in the domain of crowdfunding is very limited. This raises the question which governance mechanisms exist in the field of crowdfunding and more importantly which configurational set-ups of these mechanisms provide the best support towards the funding success of crowdfunding projects.

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Mollick, 2014). We understand such *governance* as a system for organizing rules and processes that regulate and coordinate the behavior of project initiators and capital-givers (Misangyi and Acharya, 2014; Blohm *et al.*, 2018). In the domain of crowdfunding, the existence of governance mechanisms has only been analyzed on single mechanisms and single-case analyses (i.e., data from only one platform) (Mollick, 2014; Belleflamme, Omrani and Peitz, 2015; Kraus *et al.*, 2016). As a result, the understanding of governance mechanisms and their effectiveness in the domain of crowdfunding is very limited. This raises two questions: which governance mechanisms exist in the field of crowdfunding; and more importantly which configurational set-ups of these mechanisms provide the best support for funding success in crowdfunding projects.

In this chapter, we investigate governance mechanisms for crowdfunding and their impact on the funding success of crowdfunding projects. We present results of a Qualitative Comparative Analysis (QCA) of governance mechanism configurations in 162 crowdfunding projects from 18 different crowdfunding platforms. We investigate 6 classes of governance mechanisms in the field of crowdfunding: Project Offering, Funding Allocation, Funding Incentives, Capital-giver Interaction, Qualification, and Regulation. Based on our project analysis, we were able to discover a set of governance mechanisms that is necessary to successfully run a crowdfunding process. Furthermore, through our cross-platform approach, we define three configurational archetypes for governance mechanisms that contribute to funding success of crowdfunding projects in each specific type of crowdfunding. Our results contribute to the literature streams of governance mechanisms and crowdfunding as well as provide valuable insights for practitioners such as project initiators and operators of crowdfunding platforms.

Crowdfunding platforms can be described as socio-technical systems that support interaction and contributions between the crowdfunding project and capital-givers who are willing to provide funding and interact with the project initiators and each other (Mollick, 2014). Crowdfunding is usually an IT-facilitated process where interaction and contributions between the crowdfunding project and capital-givers, who are willing to provide funding, are intermediated by crowdfunding platforms. In

practice, crowdfunding platforms face heavy challenges raised by the different types of crowdfunding, the two-sided markets and the behavior of capital-givers from the crowd. To overcome these challenges the domain of crowdfunding lacks governance mechanisms (Mahr, Rindfleisch and J. Slotegraaf, 2015; Blohm *et al.*, 2018). Governance mechanisms support the funding process and help to reduce the risk of negative experiences, intransparency and fraud.

5.2 Governance Mechanisms in Crowdfunding

The inefficiencies in the crowdfunding process described above call for the need of control or governance mechanisms when presenting a crowdfunding project to capital-givers from the crowd. In the general field of information systems, governance is regarded as an effective measure to obtain control of IT-based scenarios and has been examined by several authors (Brown and Grant, 2005; Weill and Ross, 2005; Bernroider, 2008). Blohm *et al.* (Blohm *et al.*, 2018) were among the first who introduced dedicated mechanisms to govern crowdsourcing systems that are built upon multiple-case studies. Existing research about the application of governance mechanisms agree that these mechanisms and their potential outcomes are highly context-specific (Forte, Larco and Bruckman, 2009; Di Tullio and Staples, 2013; Blohm *et al.*, 2018). As a result, it can be said that governance is enacted through dedicated governance mechanisms (Blohm *et al.*, 2018). Taking these two streams into account, we systematically derived 20 theory-based governance mechanisms for crowdfunding projects. These 20 governance mechanisms can be categorized into 6 classes. Table 11 lists these mechanisms by class and offers a brief description of each.

The class *Project offering* is comprised of the following mechanisms: Quality Assessment, Presentation Templates, Funding Requirements, Billing Options, and Framing. *Quality Assessment* describes the quality assurance process of a platform. Usually a platform checks the submitted projects prior to publishing them in order to maintain a desired level of quality among its published projects (Mollick, 2014; Ahlers *et al.*, 2015). In addition, the platforms often offer *Presentation Templates* to the project initiators to help them set up their projects properly (Belleflamme, Omrani and Peitz, 2015). The mechanism *Funding Requirements* describes project-specific

funding mechanisms such as defined funding levels that need to be reached in order to distribute the collected capital to the project initiator. This mechanism may adopt either the ‘winner-takes-all principle’ where the capital is only distributed when the funding levels are reached, or the ‘take-all principle’ where the collected capital is released to the project initiator regardless of the reached funding level (Wash, 2013; Mollick, 2014). *Billing Options* portray the way the project initiators are charged for using the crowdfunding platform. In practice, the set-up process of a project is usually free of charge and project initiators are only charged based on the funding success (e.g., percentage of collected capital) of their project (Belleflamme, Omrani and Peitz, 2015). *Framing* describes the project’s ability to increase the importance or the willingness to participate for capital-givers by framing the project’s purpose (i.e., contributing to a greater good) – for example through storytelling (Herzenstein, Sonenshein and Dholakia, 2011).

The class *Funding Allocation* sums up two governance mechanisms: Attribute-based Funding and Profile-based Funding. *Attribute-based Funding* is related to funding offers related to capital-givers’ attributes (Heminway, 2014). For example, this could be specific maximum funding amounts that are allowed for private individuals or companies. This mechanism is mostly related to legal requirements. *Profile-based Funding* describes profile-based offers for capital givers (i.e., offers only for experience capital-givers with funding track-record) (Burtch, Ghose and Watal, 2013a; Belleflamme, Omrani and Peitz, 2015).

The class *Funding Incentives* includes four governance mechanisms: Funding Overview, Categorization, Compensation, and Reputation System. *Funding overview* is a mechanism that displays the current state of the funding level (e.g., progress bar or percentage of funding goal) of a project (Burtch, Ghose and Watal, 2013b). The mechanism *Categorization* describes the organization of projects by categories, which is an important function due to the rising number of different projects (Belleflamme, Omrani and Peitz, 2015). Both governance mechanisms have been observed among all projects. The mechanism *Compensation* sums up different variables of compensation such as financial and non-financial rewards for capital-givers (Belleflamme, Lambert and Schwienbacher, 2013). Altruistic crowdfunding

projects often do not offer rewards in exchange for funding. *Reputation Systems* describe systems where capital-givers can achieve ranks or levels, usually with public visibility, based on their individual participation or experience in crowdfunding projects (Agrawal, Catalini and Goldfarb, 2014).

The class *Capital-giver Interaction* accounts for the interactive governance mechanisms Feedback, Updates and Socialization. Crowdfunding is a collaborative way of financing certain causes with interaction between the participating capital-givers. The mechanism *Feedback/Follow-up* describes the ability of a project to provide information to the capital-givers after a project is funded (Xu *et al.*, 2014). For example, a project provides feedback about the progress of the funded cause. *Updates* describe projects' potential to provide capital-givers with updates during the ongoing funding process (Xu *et al.*, 2014). The provision of tools for direct communication between projects or their initiators and capital-givers describes the governance mechanism Socialization (Xu *et al.*, 2014; Zheng *et al.*, 2014).

The class *Qualification* contains three governance mechanisms: Peer coaching, Tutorials, and Events. If applied well, these mechanisms can help the onboarding process of new capital-givers. When participating in funding projects on crowdfunding platforms, capital-givers need to have a certain level of knowledge about or qualification on how the processes for providing funding for a project work. *Peer Coaching* describes mechanisms where experienced capital-givers or staff from the platform provide advice to unexperienced capital-givers. If this coaching is provided as formal text- or video-based trainings, the mechanisms can be described as *Tutorials* (Agrawal, Catalini and Goldfarb, 2014; Belleflamme, Omrani and Peitz, 2015). Since crowdfunding is usually conducted online, *Events* such as webinars or live (offline) gatherings also be used for the onboarding process. However, only Peer coaching and Tutorials were observed among all our analyzed projects.

The class *Regulation* sums up mechanisms that regulate and control capital-giver behavior. In practice, crowdfunding is regulated through different laws on national and international levels. The *Authentication* of capital-givers is necessary before entering the funding process in order to personally identify the capital-giver. Usually, capital-givers need to pass a registration process in order to be able to join the funding

process (Ahlers *et al.*, 2015). Furthermore, capital-givers need to be informed about the risks and compliance when participating in the crowdfunding process, particularly on platforms with financial rewards. The mechanism *Risk/Compliance* describes the legal information that must be provided to capital-givers, including details about their rights and obligations (Ahlers *et al.*, 2015). In addition, there are also informal rules or regulations when participating in a crowdfunding process. These *Netiquette* rules are mostly related to the interaction of capital-givers and include terms of use with respect to desired capital-givers' behavior (Kraus *et al.*, 2016). These three mechanisms of the Regulation class can be seen as requirements that must be fulfilled in order to legally conduct the crowdfunding process and thus, can be found in every project and every platform among our analyzed data.

Class	Governance mechanism	Description
Project offering	Quality assessment (Mollick, 2014; Ahlers <i>et al.</i> , 2015; Viotto da Cruz, 2018)	Platform's internal quality assessment before publishing projects
	Presentation templates (Belleflamme, Omrani and Peitz, 2015)	Offer to initiators for presenting project on platform
	Funding requirements (Wash, 2013; Mollick, 2014; Kuppuswamy and Bayus, 2017)	Min./Max. funding level, funding mechanisms (e.g. winner takes all/take all)
	Billing options (Belleflamme, Omrani and Peitz, 2015)	Project initiators are billed based on funding success
	Framing (Herzenstein, Sonenshein and Dholakia, 2011; Davis <i>et al.</i> , 2017)	Framing the project so that it increases in importance for contributors (e.g. contributing to greater good)
Funding allocation	Attribute-based funding (Heminway, 2014)	Allowed funding amounts: Individuals vs. corporates
	Profile-based funding (Burtch, Ghose and Wattal, 2013a; Belleflamme, Omrani and Peitz, 2015)	Exclusive project offerings (e.g. only for experienced capital-givers)
Funding incentives	Funding overview (Burtch, Ghose and Wattal, 2013a; Kuppuswamy and Bayus, 2018)	Current state/level of funding progress in projects
	Categorization (Leung and Sharkey, 2014; Belleflamme, Omrani and Peitz, 2015)	Organization of projects by categories
	Compensation (Belleflamme, Lambert and Schwienbacher, 2013)	Financial and non-financial rewards for capital givers
	Reputation system (Agrawal, Catalini and Goldfarb, 2014)	Capital-givers can achieve levels/ranks based on their individual experience (e.g. amounts of funding)
Capital-giver interaction	Feedback/follow-up (Xu <i>et al.</i> , 2014)	Providing capital-givers with feedback/follow-up info after funding
	Updates (Xu <i>et al.</i> , 2014; Block, Hornuf and Moritz, 2018)	Providing capital-givers with updates on funded projects and newly arrived project offers
	Socialization (Xu <i>et al.</i> , 2014; Zheng <i>et al.</i> , 2014)	Providing tools for direct communication between project (initiators) and capital givers
Qualification	Peer Coaching (Agrawal, Catalini and Goldfarb, 2014)	Providing mechanisms with which experienced capital-givers/staff provide advice to new contributors
	Tutorials (Belleflamme, Omrani and Peitz, 2015)	Offering text- and / or video-based trainings as well as instructions on how to participate in funding
	Events (Belleflamme, Omrani and Peitz, 2015)	Webinars/live events to introduce business model, attract capital-givers
Regulation	Authentication (Ahlers <i>et al.</i> , 2015)	Verifying the identity of newly registered capital-givers
	Risk/Compliance (Ahlers <i>et al.</i> , 2015; Courtney, Dutta and Li, 2017)	Risk and compliance information (legal regulation) to inform capital-givers about rights and obligations
	Netiquette (Kraus <i>et al.</i> , 2016)	Establishing formal and informal rules of participation as well as terms of use with respect to desired behaviors of capital-givers

Table 11. Governance Mechanisms in Crowdfunding

5.3 Methodology

After deriving governance mechanisms in the field of crowdfunding, we measured their influence on the funding process. By systematically analyzing real crowdfunding projects on different crowdfunding platforms through QCA (Qualitative Comparative Analysis), we discovered configurations of governance mechanisms that had a positive influence on the funding success of crowdfunding projects. Below, we explain in detail our data collection methods, variables, measures, and QCA.

5.3.1 Data Collection

Initially, over 500 crowdfunding platforms have been identified. For our analysis we considered crowdfunding platforms only if they are working, publicly accessible via an English or German website, and active business operations during the time of research (July 2017 to August 2019). In total, 254 different crowdfunding platforms fulfilled these criteria. We then chose six popular platforms in each of the three types of crowdfunding (see Table 12) in order to ensure a sufficient and sound sample size and an equally balanced data set. We analyzed 108 projects in the first wave of data collection. In order to increase the robustness and temporal stability of our results, we conducted a second wave of data collection, following the same project selection criteria, and added 54 additional projects from 9 different platforms (June 2019).

Platform	Project Example
Hedonistic: Kickstarter, Indiegogo, Startnext, RocketHub, Crowdfunder, Vision bakery	Pebble: E-Paper Watch: Smartwatch for iPhone & Android
Altruistic: DreamBank, Fundly, Betterplace, Socialfundr, Globalgiving, Fundrazr	Hurricane Sandy Disaster Relief: Disaster relief for hurricane victims
For-Profit: Appbackr, Crowdcube, Econeers, FundedByMe, AppsFunder, seedmatch	AOTerra: Energy supply for heating by waste heat of servers

Table 12. Investigated Crowdfunding platforms

5.3.2 Variables and Measures

In total, we derived 20 governance mechanisms from theory as potential conditions for our analysis. In order to determine effective configurations of governance

mechanisms, we measured both funding success and the use of governance mechanisms of crowdfunding projects.

Funding success: Project success was defined as achieving the defined funding goal within the defined time limit by the project initiator (i.e., 0 = project was not successfully funded; 1= project was successfully funded).

Governance Mechanisms: The theory-based governance mechanisms were evaluated against each project as our unit of analysis (i.e., 0 = project did not use mechanism; 1 = project used mechanism).

5.3.3 Qualitative Comparative Analysis

We conducted the analysis of our data through the QCA method. As proposed by Ragin (2008a), set relations (i.e., configurations of variables) are central theory-building in social science. As a result, QCA has recently gained significant attention among researchers and practitioners (Fiss, 2011; Huarng and Roig-Tierno, 2016; Kraus *et al.*, 2016; Marx and Dusa, 2016).

We excluded 14 governance mechanisms from our analysis. From the Project Offering class, the mechanisms Quality Assessment, Funding Requirements, and Billing Options were excluded because they were observed among every project on every platform. Especially without the first two mechanisms in this class, a proper presentation of a project prior to starting the funding process would not be possible. The class Funding Allocation – consisting of the two mechanisms Attribute-based funding and Profile-based funding – was also not considered in the analysis. While a differentiation between individuals and corporates as capital-givers is required by law and thus implemented in all projects and platforms, the allocation mechanism Profile-based Funding with specific offers based on capital-givers' profiles was not implemented at all among the observed projects. Furthermore, we excluded all three mechanisms of the class Qualification because they can be considered as onboarding proposition towards unexperienced capital-givers from the crowd. Tutorials and Peer coaching were observed in every project and platform. In addition, the three mechanisms from the Regulation class were not analyzed, since they are based on legal requirements and thus were implemented in every project and platform.

In Crisp-Set QCA (csQCA), binary-coded data are used to indicate either membership ('1') or non-membership ('0') of a set of variables. If applied correctly, csQCA discovers one more casual paths to the explained outcome as configurations in an explanatory model (Rihoux, 2003). Most researchers have focused on categorizing relevant variables into configurations for achieving certain outcomes such as satisfaction, profit, and performance (Kraus *et al.*, 2016; Marx and Dusa, 2016). This set-theoretic approach aims to define combinations of casual conditions (i.e., configuration of governance mechanisms) that contribute to a certain outcome (i.e., successful crowdfunding projects) (Marx and Dusa, 2016). Accordingly, we followed the csQCA section of Ragin's (2008b) QCA guide step by step.

As a second step, we calculate a truth table that shows all possible configurations of the governance mechanisms. In order to refine the truth table, we excluded less relevant configurations by assessing the configurations based on their frequency value and consistency value. The frequency value defines how many cases can be accounted towards a specific configuration in order to decide if the configuration should be considered for further analysis. Consistency value outlines the degree to which specific cases share a certain configuration in relation to an outcome (Ragin, 2008b). Following Ragin (2008b), we defined a frequency threshold of 5 to include only configurations of governance mechanisms that occurred at least 5 times in our overall data in first iteration. Consistency values can be compared to correlations and show the degree of overlap between the combinations of conditions in relation to a certain outcome in specific cases. Ragin (2008b) proposes that the acceptable consistency should be equal or above 0.75. In line with this recommendation and other literature (Misangyi and Acharya, 2014; Marx and Dusa, 2016), we specified the consistency cutoff as 0.75.

As a last step, the truth table needed to be analyzed. For this analysis Ragin (2008b) suggests applying the Quine-McCluskey algorithm. The algorithm calculates combinations of conditions which lead to the specific outcome (i.e., funding success) by removing inconsistent or absent conditions in relation to the outcome. The analysis provides a set of solutions that is based on a different treatment of remainder

combinations (Ragin, 2008b) and that shows the combinations of governance mechanisms that lead to or support the likelihood of successful funding.

5.4 Results

Our analysis provides various interesting insights. First, we observed that some governance mechanisms were used in every project and on every platform that we analyzed. These mechanisms can be defined as a “baseline governance” that is necessary in order to maintain efficient and legally compliant crowdfunding operations. *Operation baseline governance* includes the mechanisms of Presentation Templates, Funding Requirements, Billing Options, Funding Overview, Categorization, Peer Coaching, Tutorials, and Netiquette. *Legal baseline governance* includes the mechanisms of Attribute-based Funding, Authentication, and Risk/Compliance. These two baselines could be found among all observed projects and platforms. While the baselines can be seen as hygiene factors controlling for avoidance of risk, fraud, and negative experiences, the adjuvant mechanisms have the potential to create the desired funding engagement (Troll, Blohm and Leimeister, 2019).

Second, through the application of QCA, we were able to identify three configurations of governance mechanisms. Combined with the baseline mechanisms, these configurations increase the likelihood of successful funding for projects. The three configurations are presented in Table 13. Each configuration consists of present and absent conditions. The presence of a condition is indicated by a black circle. A condition that is absent is indicated by a crossed-out circle. For each configuration, large circles indicate core condition, while small circles indicate peripheral conditions. Blank cells indicate that a condition has no influence on the outcome and can be either present or absent.

Conditions	Configurations		
	1	2	3
<i>Project Offering</i>			
Quality Assessment	●	●	●
Framing	●	⊗	●
<i>Funding incentives</i>			
Compensation		⊗	●
Reputation system	⊗	⊗	●
<i>Capital-giver interaction</i>			
Feedback/Follow-up	●	⊗	●
Updates	●	●	●
Socialization	●	●	⊗
Consistency			
	0.946	0.857	1.000
Raw coverage			
	0.432	0.074	0.074
Unique coverage			
	0.432	0.074	0.074
Overall Solution Consistency			0.940
Overall Solution Coverage			0.580

Table 13. Configurations of Governance Mechanisms

Coverage values indicate to which degree a configuration explains an outcome and can be interpreted like R-square values. Raw Coverage indicates in what percentage a case in a data set can be observed and Unique Coverage estimates the percentage of cases that show a membership in that configuration but not in any other configuration. Both measures indicate that our results are very good and indicate a desirable level of explanation of funding success (Ragin, 2008b).

These three configurations consist of distinct sets of mechanisms that can be transformed to three different configuration archetypes. The three archetypes share some similarities. In two of the three archetypes, the mechanisms Socialization and Framing play important roles, which is in agreement with extant research in this field (Herzenstein, Sonenshein and Dholakia, 2011; Giudici, Guerini and Rossi Lamastra, 2013; Colombo, Franzoni and Rossi-Lamastra, 2015; Buttice, Colombo and Wright, 2017). In addition, the mechanism Updates can be found in all three archetypes (Agrawal, Catalini and Goldfarb, 2014; Scheaf *et al.*, 2018). However, the archetypes also differ from each other, as described below.

The *Hedonic Archetype* relates to configuration 1 in Table 13 and includes the presence of the mechanisms Framing, Updates, and Socialization as core conditions. Quality Assessment and Feedback remain peripheral conditions. Compensation does

not play any role and need not be either present or absent. This archetype strengthens the assumption that Hedonistic crowdfunding is often mainly motivated by enjoyment of participation. Rational investment decision-making thoughts or focus on financial returns only play subordinate roles. As a result of all these points, this archetype should be applied by projects on Hedonistic crowdfunding platforms.

The *Altruistic Archetype* relates to configuration 2 in Table 13 and supports the altruistic motivation of capital-givers by positioning the project accordingly. Again, the presence of the mechanisms Updates and Socialization remain core conditions and indicate the importance of (social) interaction between capital-givers and the crowdfunding project. Quality assessment as a peripheral condition ensures a certain level of project quality. However, the absence of Framing, Compensation, Feedback, and Reputation system points out a particularly different configuration in comparison to the other archetypes. Framing and Feedback as absent conditions relate to the environment of Altruistic crowdfunding where projects are usually simple and require only small amounts of funding. This simplicity usually leads to a smaller demand for feedback after the project participation. In addition, the absence of Compensation can be linked to the altruistic mindset of capital-givers on Altruistic crowdfunding platforms. As a result, this mindset can be stimulated by the projects with the described configuration.

The *For-Profit Archetype* is likely to be found among profit-oriented crowdfunding platforms, i.e., lending- and equity-based crowdfunding, where capital-givers expect financial returns from their project participation. As one of the present core condition, the mechanism Framing is used to set cues for funding, for example by using storytelling to create interest for the project. The peripheral conditions Compensation and Reputation are linked to the needs of capital-givers in for-profit crowdfunding. The financial compensation is one of the main motivations for capital-givers to participate in for-profit crowdfunding. By proving capital-givers' experience or participation history, Reputation Systems can create additional status among the capital-givers of a project. Often these systems are directly related to the invested amounts or number of participants in different projects. Another core condition of this archetype is the mechanism Updates which provides information to the capital-

givers so they can evaluate the attractiveness of the project and measure the impact of their funding. Well-known investment-decision behaviors among capital-givers (like herding) can be supported by this mechanism due to the increased popularity. After the funding, the mechanism Feedback plays an even more central role as a present core condition in this archetype. Since capital-givers are expecting a financial return on their investment, feedback and follow-up functions help to increase the feeling of a strong impact of each individual funding.

These three archetypes define configurations of governance mechanisms in crowdfunding that increase the likelihood of successful project funding. However, it is important to keep in mind that the mechanisms of the archetypes need to be combined with operational and legal baselines in order to affect their full impact on the funding process.

5.5 Discussion and Implications

In this chapter, we identified governance mechanisms in crowdfunding and their influence on the funding success of crowdfunding projects. Our results provide three configurational archetypes that can be applied in different crowdfunding settings. The archetypes were defined by observing a balanced set of projects and platforms from all types of crowdfunding. Our results have both theoretical and practical implications.

5.5.1 Theoretical implications

Our research provides two main theoretical implications that extend existing research in the field of crowdfunding. First, we were able to define governance mechanisms in the field of crowdfunding. We categorized these mechanisms into six classes. Additionally, we were able to observe the theoretically derived mechanisms in practice in projects on actively operating crowdfunding platforms. Second, we were able to set a first link between the implementation of governance mechanisms and their influence on the funding success of crowdfunding projects.

Catalogue of Governance Mechanisms for Crowdfunding: The results of our study extend extant research on variables influencing the funding success of

crowdfunding projects by combining different research streams in the field of governance mechanisms (Courtney, Dutta and Li, 2017; Kuppuswamy and Bayus, 2018; Viotto da Cruz, 2018). Our analysis defines a catalogue of governance mechanisms in the field of crowdfunding with the potential to generate the desired engagement in the funding process. Additionally, our analysis describes two different types of governance mechanisms: baseline and designable governance mechanisms. *Baseline governance mechanisms* can be seen as legal and operational baselines that are necessary in order to operate the crowdfunding process in a legally compliant and operationally efficient way. We observed baseline governance mechanisms to be present on every platform in every project we analyzed. These mechanisms are usually designed by platforms. There are also individually *designable governance mechanisms*. They can be found in project presentations and are usually provided by crowdfunding platforms (Ellman and Hurkens, 2019). The platform usually provides the templates for project initiators to design and present their project. These templates include governance mechanisms that can be individually designed and used by the project initiator (Mollick, 2014). Additionally, the results based on our data set with platforms operating especially in the European market, we broaden the knowledge about platform and project governance that has a strong U.S.-centric perspective (Belleflamme, Lambert and Schwienbacher, 2013; Dushnitsky *et al.*, 2016).

Effectiveness of Governance Mechanisms Configurations: As a next step, we investigated configurations of these governance mechanisms that have an impact on the funding success of crowdfunding projects. Interestingly, we were able to find differences in the use or configuration of these governance mechanisms between successful and unsuccessful projects. In two of three archetypes, the mechanisms Socialization and Framing show the importance of actively promoting social interaction. In addition, capital-givers react to cues that frame a project so that it increases in importance of participation. The mechanism Updates is a core condition in all three archetypes and shows the necessity of maintaining a dialogue with capital-givers during a funding process. By analyzing our dataset through QCA, we identified three configurations of governance mechanisms that lead to a higher likelihood of successfully reaching the defined funding goal. Our insights on the configurations of governance mechanisms link with existing research on capital-giver or crowd

behavior (Belleflamme, Lambert and Schwienbacher, 2013; Ceballos *et al.*, 2017; Courtney, Dutta and Li, 2017). By building upon current knowledge about project characteristics and their impact on the capital-givers' funding decisions, governance mechanisms and their appropriate configurations provide valuable and differentiated insights into the context-sensitive field of crowdfunding (Blohm *et al.*, 2018). The configurations contribute in-depth knowledge on the design patterns of crowdfunding platforms and more importantly their impact on capital-givers from the crowd (Davis *et al.*, 2017; Scheaf *et al.*, 2018).

5.5.2 Practical implications

The primary motivation of project initiators for offering appropriate governance mechanisms is to increase the likelihood of a successful funding process. If one of our defined configurations is applied by the project initiators within the appropriate crowdfunding environment, it is more likely to attract funding from the crowd. Similarly, platforms can leverage our results by implementing the applicable governance mechanisms and by offering certain templates and toolkits to project initiators to realize and deploy the mechanisms in their project offerings.

In general, our results provide governance mechanisms in order to make the crowdfunding process more efficient and legally compliant. These governance mechanisms provide value for all three stakeholders of the crowdfunding process. Crowdfunding platforms can increase the efficiency of their role as an intermediary between project initiators and capital-givers from the crowd by: a) designing baseline governance mechanisms and providing templates using our defined configurations of governance mechanisms; and b) reducing the risk of fraud or unwanted behavior of the two parties. Project initiators are more likely to create successful crowdfunding projects if the governance mechanisms are designed according to our configurations and capital-givers from the crowd benefit from greater transparency (Nussbaumer, Matter and Schwabe, 2012).

In summary, the correct configuration of governance mechanisms can increase the likelihood of successful funding, which is the main incentive for all three stakeholders

in the crowdfunding process. Additionally, our results are valuable for policymakers in the evolving and fast changing legal environment of crowdfunding.

5.6 Limitations and Future Research

The empirical results of this research show the impact of governance mechanisms on the success of crowdfunding projects. Nevertheless, our results have to be interpreted in the light of their limitations.

One limitation is our small (but sufficient) sample size, and therefore the risk of limited validity. However, we did conduct a second data collection to increase the robustness of our results. Thus, our comprehensive platform approach with all types of crowdfunding strengthens our results which should be broadly generalizable to the field of crowdfunding.

Our analysis derived three configurational archetypes for governance mechanism in crowdfunding projects. Yet, more research is necessary to extend our findings, and indeed our study offers various possibilities for that. For example, further and individual investigation of the defined governance mechanisms can be conducted for each type of crowdfunding. Another interesting next step could be the development of an even more detailed approach towards differences between governance mechanisms on crowdfunding platforms that does not rely on the configuration in each project (i.e., crowdfunding platform governance).

5.7 Conclusion of the Chapter

The definition and the measurement of governance mechanisms' effect on funding success provides first evidence on the impact of governance on the success of crowdfunding projects. The configurational approach with the definition of three context-sensitive governance mechanism configurations based on a broad data collection provides first insights on the application of governance mechanisms in the field of crowdfunding. The findings are especially interesting for project initiators that can integrate governance mechanisms into their project presentation in order to effectively control the funding behavior of the crowd.

6 Synthesis of the Findings

The main objective of this dissertation was to study and identify crowdfunding project characteristics that stimulate funding behavior of the crowd and thus, have an impact on the funding success. The findings presented in the previous chapters of the dissertation help to create a more holistic understanding on the different stakeholder perspectives and related project characteristics as well as shortcomings of current research (RQ1). Additionally, the findings show how creative and hedonic experiences can influence funding success in crowdfunding (RQ2). Finally, the findings define governance mechanisms in crowdfunding and how they can be successfully applied in the different types of crowdfunding in order to support the overarching goal of funding success (RQ3). The following sections of this chapter integrate and discuss these findings.

6.1 Current State-of-the-Art on Crowdfunding Success Factors

With a focus on the characteristics of crowdfunding projects with potential to influence funding behavior of the crowd, this dissertation reveals three insights that were presented in chapter 3. In crowdfunding research with focus on funding success four main research perspectives were identified. The research perspectives consist of the crowd or capital-giver perspective (1), the platform perspective (2), the project (initiator) perspective (3) and the legal perspective (4). The definition of these perspectives is relevant, because every perspective can create their own dynamics when it comes to influencing the funding success in crowdfunding.

The capital-giver perspective solely focusses on the characteristics, motives and characteristics of capital-givers from the crowd. Obviously, the crowd is crucial in the collective funding process. However, most findings are based on research that draws conclusions on the investment decision behavior of capital-givers by investigating individual project characteristics and comparing their different manifestation in successful and unsuccessful projects (Mollick and Nanda, 2016; Cumming, Johan and Zhang, 2019; Eiteneyer, Bendig and Brettel, 2019).

In this vein, the platform perspective and current research with a specific focus on the role and characteristics of crowdfunding platforms provide first insights on the details

of the intermediation process (Dushnitsky *et al.*, 2016; Walthoff-Borm, Schwienbacher and Vanacker, 2018). Still, in comparison to the potential of this central role in the crowdfunding process, in-depth investigation on crowdfunding platforms comes up short. Furthermore, the presented results of the literature investigation indicate that theoretical findings on crowdfunding platform research are mainly based on the analysis of one individual type of crowdfunding. In addition, already investigated inefficiencies in the crowdfunding process, such as herding, that could potentially be positively influenced on the platform level, mostly remain uninvestigated from this perspective.

In comparison to the three other perspectives, research on the project (initiator) perspective received a lot of attention. The majority of the identified and investigated literature is based on project characteristics and their influence on the funding behavior of capital-givers from the crowd. These characteristics are mostly directly observable details of the project presentation on the crowdfunding platform (Siering, Koch and Deokar, 2016; Chan and Parhankangas, 2017). In addition, some research focusses on characteristics of the project initiator who plays a central role in the project presentation towards the capital-givers from the crowd (Colombo, Franzoni and Rossi-Lamastra, 2015; Buttice, Colombo and Wright, 2017).

As a result, the perspectives of the crowd or capital-givers, the crowdfunding platform perspective and the projects or project initiators could be defined as three different units of analysis. Additionally, the definition and stronger differentiation of the findings of each perspective lead to a better understanding of the funding process and its influencing factors. The findings of chapter 4 and 5 of the dissertation show the need for the described and differentiated approach on crowdfunding research.

In comparison the heavy challenges in practice, especially of For Profit crowdfunding, the legal perspective does not receive adequate attention from the scientific community. Creating and changing legal environments on national levels create different challenges for policy makers as well as direct stakeholder of the crowdfunding process (Doidge, Andrew Karolyi and Stulz, 2007; Heminway, 2014; Hornuf and Schwienbacher, 2017). Consequently, this perspective is of high importance for the further development of crowdfunding.

In addition to the four perspectives, the literature investigation concluded that most of the identified characteristics with impact on funding success resulted from analyses with only limited explanatory power, and thus, limited generalizability. This insight is based on the finding that nearly every analyzed research article and its results were based on single case analyses with data from only one type of crowdfunding.

Furthermore, in most cases the data was retrieved from only one single crowdfunding platform. Specifically, one publicly available and officially released data set from the platform Kickstarter formed the basis for many research projects. As a result, it is important to keep the limitations of existing research in mind, when interpreting and defining additional synthesized research streams. Third, current research mainly focusses on directly observable factors of crowdfunding projects. Still, the findings provide valuable insights for both theory and practice. But, at the same time factors with impact on funding behavior of the crowd that go beyond this level remain mostly undefined. Subsequently, parts of this dissertation (chapter 4 & 5) focused on this matter. The findings are synthesized in the two following sections.

6.2 The Role of Creativity and Hedonism in Crowdfunding

The findings described in chapter 3 formed the basis for the following research question on how crowdfunding project characteristics stimulate sensation seeking behavior of capital givers (RQ2). Building upon already examined project characteristics, the study offers valuable insights on the effect of creative and hedonic experiences in crowdfunding. The results of the study take findings of related literature a step further. Especially the definition and measurement of hedonic and creative experiences in crowdfunding projects extends existing research of in-depth project analysis (Chan and Parhankangas, 2017; Manning and Bejarano, 2017; Oo *et al.*, 2019).

Herzenstein (2011) and Manning and Bejarano (2017) observed storytelling in different crowdfunding scenarios and its positive influence on the funding success of projects. Certainly, creative and hedonic experiences can be related to the phenomenon of storytelling. However, the variables to measure creative or hedonic experiences go beyond storytelling and can be integrated in different ways in project

presentations. Subsequently, the results of this study show the potential of creative and hedonic experiences on the funding process.

The impact of creative and hedonic experiences can also be linked to the principal-agent theory. The project-initiator in the agent role is able to influence the funding decision of capital-givers from the crowd in the principal role. However, the findings of the dissertation only focus on the dynamics during the funding process and the funding outcome. As a result, the findings do not allow to take a proposition on the efficiency lowering agency costs based on signaling project details to create creative or hedonic experiences. Nevertheless, the project's signals with the potential to trigger creative and hedonic experiences have an influence on the funding decision.

In addition, the results of the study advance theoretical findings on signaling in the domain of crowdfunding. Ahlers et al. (Ahlers *et al.*, 2015) observed signaling in For Profit crowdfunding based on variables related to project risk. The presented study of chapter 4 shows that signaling in the field of crowdfunding can also be applied to a different set of variables. Furthermore, the results provide evidence on a crowdfunding project's potential to create creative and hedonic experiences among capital-givers and a generally positive relation between these experiences and funding success. In addition, the findings of the dissertation show that the influence of creative and hedonic experiences is not only limited to this type of crowdfunding but can be found among Altruistic and Hedonistic crowdfunding.

Although, creative and hedonic experiences can be used to explain and predict the likelihood of funding success, it is important to keep two additional arguments in mind. First, creative and hedonic experiences can be caused by a variety of presentation variables of the crowdfunding project. Second, the impact of creative and hedonic experience varies between the different types of crowdfunding. This allows to assume different motivational patterns among capital-givers from the crowd in each specific crowdfunding scenario. Still, the overarching common denominator in all types of crowdfunding was the projects potential to create feelings and emotions as two traits of hedonic experiences among capital-givers. These two variables are also known stimuli in traditional domains of finance (Grinblatt and Keloharju, 2009).

As a result, chapter 4 show the influence of the two non-economical dimensions on the funding success of crowdfunding projects. The findings contribute to both analysis of crowdfunding project characteristics, but also analysis of funding behavior from capital-givers. Especially the systematic data collection from all types of crowdfunding and the multi-platform approach strengthens the validity of the findings.

6.3 Effective Governance Mechanisms in Crowdfunding

The findings of the study presented chapter 3 showed the absence of research on crowdfunding governance. Furthermore, based on the impact of creative and hedonic experiences on the funding success of a project, it can be said that mechanisms to govern or control for behavior of the crowd are needed. Advancing the arguments on the presence of information asymmetries and unwanted behavior or fraud, the findings of chapter 4 create an even stronger demand for governance mechanisms. This is because capital-givers normally cannot conduct an integrity or due diligence check on the project they plan to fund. If part of the decision-making process of capital-givers in crowdfunding is related to cues set by the project that aim for example towards emotions of the capital-givers, the risk of losing not taking an optimal funding decision is high.

As a result, the presented study defines governance mechanisms in the domain of crowdfunding (RQ3). Based on theory on crowdfunding and governance, a catalogue consisting of six classes of governance mechanisms was derived. These six classes allow a comprehensive approach towards governance in crowdfunding and consist of project offering (1), funding allocation (2), funding incentives (3), capital-giver interaction (4), qualification (5), regulation (6). However, this part of the study did not canvass on the potential influence on funding success.

Following this thought in combination with the findings of chapter 3 and chapter 4 of the dissertation, the second part of the study analyzed how the defined governance mechanisms can effectively applied. Subsequently, the multi-level approach from chapter 4, the study reveals three distinct configurations of governance mechanism

with positive influence on funding success. The configurations can be applied in different crowdfunding settings (e.g., depending on type of crowdfunding).

In addition to the configurations, the study identified governance mechanisms that were present in every observed crowdfunding scenario and, thus, are necessary to operate the crowdfunding process. Still, all governance mechanisms have the potential to heavily decrease information asymmetries and to make the crowdfunding process more efficient. The resulting risks for capital-givers from the crowd (Gobble, 2012; Sigar, 2012) and for projects and their initiators (Valancene and Jegeleviciute, 2013; Mollick, 2014) can be weakened by the implementation of appropriate crowdfunding governance.

In line with existing research (Ahlers *et al.*, 2015; Cumming, Meoli and Vismara, 2019), this shows the influence and potential of the application of governance mechanisms in the field of crowdfunding in order to decrease the power of present information asymmetries.

7 Theoretical Contributions

The dissertation provides a set of theoretical contributions for research on crowdfunding success factors, signaling to overcome information asymmetries and governance mechanisms in crowdfunding.

7.1 Determinants of the Crowdfunding Process

Research in the field of crowdfunding is focused on different crowdfunding specification, but often lacks integration or generalizability to the overarching dynamics behind crowdfunding. Even though crowdfunding received increased attention from policy-makers, entrepreneurs and capital-givers but is still not adequately understood and recognized (Griffin, 2013; Ahlers *et al.*, 2015).

The systematic literature review and the definition of stakeholder perspectives with current creates a better understanding of the crowdfunding process in general and current shortcomings on existing research. The results of this approach extend findings of existing crowdfunding research by providing four distinct research streams that require further investigation. This also enhances and structures existing calls for action in research of the distinct areas (Valancene and Jegeleviciute, 2013; Dushnitsky *et al.*, 2016; Hornuf and Schwienbacher, 2017).

Investigating existing literature in crowdfunding research showed several imbalances on the amount of papers and research projects within the four research streams. Especially research with specific focus on the platform perspective and capital-givers from the crowd is scarce. In addition, crowdfunding theory and practice lacks research insights on the legal perspective on crowdfunding. This is especially important, because crowdfunding is usually conducted over the Internet (Belleflamme, Lambert and Schwienbacher, 2013; Agrawal, Catalini and Goldfarb, 2014). As a result, it is difficult to limit crowdfunding activities within the boundaries or borders of a country (La Porta *et al.*, 2000; Doidge, Andrew Karolyi and Stulz, 2007; Sigar, 2012). However, regulations, laws and policies are usually passed on a national level by policy-makers, regulators or governments (Kitchens and Torrence, 2012; Stemler, 2013).

7.2 Signaling towards Creativity and Hedonic Experiences in Crowdfunding

The investigation in the domain of crowdfunding towards success factors of crowdfunding projects is a relatively young but vivid field of research. The dissertation contributes to existing research in signaling in crowdfunding and the identification of creative and hedonic experiences as two variables with influence on the funding success of crowdfunding projects. Consequently, the dissertation provides three main theoretical contributions on signaling towards creative and hedonic experiences:

First, the dissertation extends existing crowdfunding research by identifying creative and hedonic experiences and defines their appearance in crowdfunding. The dissertation observes creative and hedonic experiences as influencing factors on the funding process through project-based content analysis. As a result, certain manifestations of creative and hedonic experiences can increase the likelihood of successfully reaching the funding goal of a crowdfunding project (Schulz *et al.*, 2015). This finding can be attributed to the principal agent theory and signaling as an approach to reduce the related agency costs (Jiang and Benbasat, 2007; Wells, Valacich and Hess, 2011).

Consequently, the identification of creative and hedonic experiences in crowdfunding extends existing research in crowdfunding with direct application of the principal agent theory and related solution towards present information asymmetries (Chaney, 2019). Furthermore, the findings integrate well with existing research on capital-giver behavior and their investment decision process (Crosetto and Regner, 2018; Eiteneyer, Bendig and Brettel, 2019; Oo *et al.*, 2019). The responsiveness of capital-givers from the crowd towards creative and hedonic experiences provides another explanation to how successful projects can differentiate themselves from unsuccessful ones (Davis *et al.*, 2017; Li *et al.*, 2017).

In addition, the findings confirm existing indications on capital-givers intention towards the participation in crowdfunding and show that the motivation not only derived from rational variables in comparison to traditional investment scenarios (Ahlers *et al.*, 2015; Kuppuswamy and Bayus, 2018; Li and Wang, 2019). Following

this thought, the investigated effects of creative and hedonic experiences can also relate to undesired capital-giver behavior such as herding (Herzenstein, Dholakia and Andrews, 2011; Jiang *et al.*, 2018).

Nevertheless, creative and hedonic experiences might have the positive potential to build a first bridge towards cues on some project initiators' and capital-giver's motivation to actively participate in the project (Belleflamme, Omrani and Peitz, 2015; Manning and Bejarano, 2017; Kim and Viswanathan, 2019). Prior findings in this field are mostly based on analyses of projects from only one crowdfunding platform and are thus only valid for one specific type of crowdfunding (Agrawal, Catalini and Goldfarb, 2014; Kuppuswamy and Bayus, 2018). As a result, the approach of a systematic data collection from all types of crowdfunding and the multi-platform approach strengthens the credibility of the findings.

Second, considering the capital-givers' sensation seeking behavior, the dissertation discovers three different types of sensation seeking crowdfunding: trend-based sensation seeking, enjoyment-based sensation seeking and activity-based sensation seeking. These types of sensation seeking can be linked to the funding scenarios of the different types of crowdfunding and extend knowledge on sensation seeking from traditional finance (Grinblatt and Keloharju, 2009). Furthermore, the three types of sensation seeking advance research on capital-givers from the crowd that has mostly considered the capital-givers in crowdfunding as being homogeneous. The dissertation creates a more differentiated view on capital-givers by showing distinct effects of signaling towards creative or hedonic experiences of capital-givers from the crowd (Ahlers *et al.*, 2015; Courtney, Dutta and Li, 2017; Viotto da Cruz, 2018).

Third, the dissertation enhances the project-based perspective of crowdfunding characteristics with influence on funding success. The findings enhance existing research on crowdfunding by linking the identified influence of creative and hedonic experiences with investment decision behavior in traditional finance (Sullivan and Miller, 1996). The analysis of projects and their quality from this angle showed that project characteristics can also set cues towards non-economical motivations of the capital-givers in order to successfully attract funding participation.

7.3 Governance Mechanisms in Crowdfunding

Existing research has defined different sources for market inefficiencies in the domain of crowdfunding that can be related to the principal-agent theory (Chaney, 2019). Especially, the strong influence of information asymmetries between the different participants resulting in adverse selection or moral hazard (Courtney, Dutta and Li, 2017; Scheaf *et al.*, 2018), changing legal environments (Kappel, 2008; Tomczak and Brem, 2013) call for better control or governance of crowdfunding. Consequently, the dissertation provides two theoretical contributions in this area of crowdfunding.

First, the definition of a catalogue of governance mechanisms consisting of six distinct classes of crowdfunding governance mechanisms. The catalogue of governance mechanisms has the potential to generate the desired engagement in the funding process and combines different research streams in the field of governance mechanisms (Courtney, Dutta and Li, 2017; Kuppuswamy and Bayus, 2018; Viotto da Cruz, 2018). However, an overarching baseline with legal and operational governance components is needed in order to successfully conduct the crowdfunding process. These findings extend current research on crowdfunding project characteristics and presentation modes on crowdfunding platforms (Ellman and Hurkens, 2019). Additionally, existing findings in this field of crowdfunding research has a strong focus on project and platforms in the U.S. crowdfunding market (Belleflamme, Lambert and Schwienbacher, 2013; Dushnitsky *et al.*, 2016) that is broadened by the results of this dissertation with a multi-platform approach.

Second, the dissertation provides first insights on the effectiveness of governance mechanisms with regards to the funding success of crowdfunding projects. The conducted analysis reveals different configurations of governance mechanisms that can positively affect the funding success. As a result, the dissertation contributes to research on success factors in crowdfunding projects (Belleflamme, Lambert and Schwienbacher, 2013; Ceballos *et al.*, 2017; Courtney, Dutta and Li, 2017) and also links with existing research on capital-givers' funding behavior (Davis *et al.*, 2017; Scheaf *et al.*, 2018).

The identification of the configurations provides in-depth knowledge on the design of crowdfunding projects towards achieving funding success in the distinct funding scenarios of the different types of crowdfunding. This is a valuable contribution to the highly context-sensitive field of crowdfunding (Blohm *et al.*, 2018). The contribution also extends research on governance and the immanent relation between country-level governance and corporate-level governance (Doidge, Andrew Karolyi and Stulz, 2007; Aggarwal *et al.*, 2009). It is very likely that country-level governance also has an impact on crowdfunding governance and more specifically on the different manifestation of crowdfunding governance between the existing types of crowdfunding.

Both contributions integrate well into the research areas of governance and success factors in crowdfunding. Besides the already mentioned contribution, the findings also enhance research on the platforms' role in the crowdfunding process. The defined governance mechanisms create a better understanding on the intermediation process and the requirements of both projects and capital-givers (Dushnitsky *et al.*, 2016; Cumming, Johan and Zhang, 2019; Cumming, Leboeuf and Schwienbacher, 2019). Although existing research mainly calls for crowdfunding governance on a platform level (Ahlers *et al.*, 2015; Wessel, Thies and Benlian, 2017; Cumming, Meoli and Vismara, 2019), it is important to also keep a focus on the project-level. By presenting their projects towards the capital-givers from the crowd, the project initiators also fulfill requirements of governance (Siering, Koch and Deokar, 2016; Courtney, Dutta and Li, 2017).

The theoretical contributions of chapter 4 on signaling towards triggering creative and hedonic experiences among the capital-givers from the crowd indicate that capital-giver motivation could rather not be too heavily driven by rules or governance (Schulz *et al.*, 2015; Manning and Bejarano, 2017; Eiteneyer, Bendig and Brettel, 2019). However, the findings of the dissertation on the effectiveness of governance mechanisms indicate otherwise. Although the influence of single governance-related variables on the funding success of a project have been analyzed by scholars (Vismara, 2016; Walthoff-Borm, Schwienbacher and Vanacker, 2018), this works' results go beyond current findings.

So far, the need or call for governance mechanisms in the field of crowdfunding was mostly limited to For Profit crowdfunding scenarios where capital-givers from the crowd expected financial returns based on their participation in the funding process (Ahlers *et al.*, 2015; Vismara, 2016; Cumming, Johan and Zhang, 2019). However, the findings indicate that governance mechanisms can have a positive impact on the funding success among all types of crowdfunding.

8 Practical Implications

The results of the dissertation provide a number of practical contributions and valuable insights on influencing factors of crowdfunding projects with impact on the funding success. The following sections discuss these practical contributions.

8.1 Improvement of the Funding Process in Crowdfunding

Although the findings of the literature investigation in chapter 3 are mainly driven by theory, the insights still help to create an even better understanding on the crowdfunding process and its stakeholders. Since the determinants of crowdfunding is still not very well understood, most projects tend to approach the funding process by trial and error in order to successfully reach the funding goal (Griffin, 2013; Wash, 2013; Kuppuswamy and Bayus, 2018).

Still, the results of existing research show risks and challenges as well as chances and explanatory variables on the dynamics of crowdfunding (Valancene and Jegeleviciute, 2013). For crowdfunding projects and their initiator, the findings present important input when it comes to setting up the project presentation on the crowdfunding platform. If project initiators implement the variables that will have an impact on the funding behavior on the crowd, the likelihood for successful funding will be higher. The findings also create an even better understanding on the motivations and intentions of capital-givers which is crucial for the project to know in order to successfully convince them to participate in the funding process.

Furthermore, the crowdfunding platforms as intermediaries or more precisely the operators of crowdfunding platforms can also benefit from the results of this part of the dissertation. Findings on the project characteristics can be integrated into the templates for project presentations (Greiner and Wang, 2010). The presented knowledge on capital-giver motivation and intentions is also crucial for crowdfunding platforms, since maintaining, managing and controlling the crowd appropriately is one of the competitive advantages that can differentiate one crowdfunding platform from another. The fact that most platforms are operated by start-ups highlights the practical relevance of the findings (Dushnitsky *et al.*, 2016).

As a result, the findings need to be implemented accordingly by both crowdfunding platforms and project initiators to increase the success of the funding process.

8.2 Conception of Creative and Hedonic Experiences

For practitioners in the field of crowdfunding, the presented findings of this dissertation provide insights on how creative and hedonic experiences can increase the likelihood of funding success for crowdfunding projects. The evaluation of project characteristics towards their influence on funding success is a vivid field of research mostly with results on directly observable and measurable characteristics. However, the results of this dissertation offer recommendations towards characteristics of the project presentation and show that triggering creative and hedonic experiences positively influence funding behavior in the different types of crowdfunding.

The detailed results presented in chapter 4 show practical implications for two stakeholders of the crowdfunding process. Project initiators who seek funding for their project should face the challenge to differentiate themselves from other projects in order to attract funding from the capital-givers of the crowd. Subsequently, projects need approach the crowd with cues towards creative experiences (novelty, paradigm relatedness, relevance) as well as hedonic experiences (fantasies, enjoyment, feelings). These cues can be integrated into the project presentation in various ways (i.e., project description, images, videos). In this vein, it is important to keep in mind that crowdfunding platforms provide the link between projects and capital-givers and also define the mode of presentation for the projects (Greiner and Wang, 2010).

As a result, the platforms need to create modes for intermediation that engage projects to trigger creative and hedonic experiences among the capital-givers from the crowd. The platforms can provide guidelines with direct hints towards creating these experiences in their templates for the project presentation. Additionally, a project's potential to create creative or hedonic experiences can also be integrated into the quality assessment that most platforms conduct before releasing a project to capital-givers from the crowd (see chapter 5).

Furthermore, it is important to keep the context-sensitivity of crowdfunding and the findings in mind (Blohm *et al.*, 2018). The impact and value of creative and hedonic experiences differs between the different type of crowdfunding. The reason for this is varying motivations for participation among the capital-givers from the crowd. As a result, both project-initiators and crowdfunding platforms should apply the determinants to trigger the desired experiences adequately.

8.3 Developing Governance Mechanisms in Crowdfunding

The responsiveness of capital-givers from the crowd towards project characteristics with cues towards creative and hedonic experiences has been shown in chapter 4. This results in higher likelihood of funding for project aim to create these experiences. However, the trait to create creative and hedonic experiences cannot be directly linked with the project's substantial quality (e.g., quality of the idea, business model, execution plan). Respectively, all three stakeholders in the crowdfunding process are facing severe risks that can be overcome with the appropriate integration of governance mechanisms. Thus, the findings of chapter 5 provide practical implication for both project initiators and crowdfunding platforms.

Additionally, policy makers that operate in the field of crowdfunding and financial technology can profit from the presented findings. So far, crowdfunding is mostly conducted without proper legislative background (Sigar, 2012; Dushnitsky *et al.*, 2016; Cumming, Meoli and Vismara, 2019). Especially Altruistic and Hedonic crowdfunding are operated without adequate laws or guidelines to protect capital-givers. Even in For Profit crowdfunding only few countries implemented a first legal basis for the operation of the crowdfunding process and potential ownership rights when it comes to receiving equity shares for participation in the funding process (Kitchens and Torrence, 2012; Stemler, 2013).

In order to increase the likelihood of successful funding, project initiators need to offer appropriate governance mechanisms within their project presentation on the crowdfunding platform. The findings of chapter 5 allow to define specific configurations that can be applied accordingly and increase the likelihood of successful funding. Furthermore, the study and its findings showed governance

mechanisms that were present in both successful and unsuccessful crowdfunding projects. These governance mechanisms should be implemented by platforms and projects. Crowdfunding platforms can integrate the baseline governance mechanisms by appropriate design and structure towards capital-givers from the crowd and project initiators.

As mentioned in section 8.1., it is also the role of the crowdfunding platform to engage project initiators to implement governance mechanisms adequately. Consequently, the provided templates for the presentation need to integrate variables to allow project initiators to realize the desired governance mechanisms. By implementing governance mechanisms into the intermediation process, crowdfunding platforms can increase their efficiency and reduce the risk of fraud or unwanted behavior of projects or capital-givers.

9 Limitations and Directions for Future Research

The findings of this dissertation are subject to a number of limitations. The following chapter will outline and discuss these limitations. In order to address these limitations and to extend the findings of the dissertation, the chapter will provide an overview on potential directions for future research.

9.1 Evaluation of Creative and Hedonic Experiences

First, it must be considered that the empirical findings of this dissertation are based on evaluations of creative and hedonic experiences in crowdfunding projects by different expert panels. These expert panels were systematically chosen and defined through distinct selection criteria. This approach aimed to eliminate the influence of unconscious cognition. Ensuring that each individual project is evaluated by experts from each panel increases the validity of the findings. However, each project evaluation has been done based on the original mode of presentation on the crowdfunding platform. Consequently, it is possible that additional factors influence the evaluations of creative and hedonic experiences (e.g. design of platform).

Furthermore, the presented findings of the dissertation are based on a data set with systematic multi-platform approach including projects from different platforms composed of all types of crowdfunding. As a result, the risk of subjectivity of the findings is decreased. Consequently, the approach allows for a certain degree of generalizability of the presented results in the domain of crowdfunding. Nevertheless, further research is needed to extend our findings and to create a more precise plan on how creative and hedonic experiences can be created. Based on the presented findings in the dissertation, there are three possible directions for further research.

The dissertation focusses on one specific area of creative and hedonic experiences. It is necessary to further investigate the characteristics of the two dimensions in the field of crowdfunding to gain an even deeper understanding of their influence on the funding decision of the capital-givers. Especially, a more in-depth analysis on the differences between Altruistic, Hedonistic and For Profit crowdfunding could strengthen the insights of the dissertation. In addition, it could be interesting to take the analysis of creative and hedonic experiences even another step further, by

analyzing them in the light of the project's purpose. For example, do creative and hedonic experiences have different impacts on the funding success of a product-based or a service-based crowdfunding project in Hedonistic crowdfunding. The potential findings of this investigation would lead to a more precise picture of creative and hedonic experiences. Consequently, it would allow project initiators and crowdfunding platforms to exploit the potential of the two dimensions towards setting cues to trigger funding behavior among capital-givers from the crowd.

Following this direction, the roles and perspectives of the crowdfunding platform and the project-initiator on the two dimensions could be integrated into the presented analysis and create an even deeper understanding about their influence on funding success. For example, an analysis on creative and hedonic experiences beyond the project level could provide additional exciting results and would be meaningful extension of the presented results in this dissertation. More precisely, future research could investigate the platforms' potential to support or engage creative and hedonic experiences among capital-givers. Additionally, the findings of the dissertation measured the project presentations' potential to trigger creative and hedonic experiences. However, it would be interesting to conduct research on factors with influence on the two dimensions besides the project presentation itself (e.g., characteristics of project initiator, project in specific hot or trending topics).

Another valuable advancement of the findings of this dissertation would be the investigation towards specific variables of the project presentation with strong potential to trigger creative or hedonic experiences. Although creative and hedonic experiences are likely not only triggered by one single specific variable of the project presentation, research on which variables of a project presentation have the potential to create creative and hedonic experiences would be very valuable for both theory and practice. In order to follow this direction, future research could integrate the presented results on creative and hedonic experiences and extend them through a design science research approach. The definition of distinct design principles that have the potential to support these two dimensions, would allow platforms and project initiators to exploit the impact of creative and hedonic experiences (Lipusch *et al.*, 2020).

Investigating these three directions may lead to an even better understanding on funding behavior and add value towards the explanation of funding success in crowdfunding.

9.2 Application of Governance Mechanisms

Second, this dissertation focusses on the identification of governance mechanisms and their effective application in the field of crowdfunding. The need for transparency and control to overcome present information asymmetries in the field of crowdfunding is described as crucial by several authors (Nussbaumer, Matter and Schwabe, 2012; Belleflamme, Omrani and Peitz, 2015; Scheaf *et al.*, 2018). The presented findings of the dissertation with the introduction of governance mechanisms in crowdfunding help overcome this challenge.

Recurrently, a data set consisting of a systematic choice of crowdfunding projects from different platforms of all types of crowdfunding has been used for the analysis. In order to make the results more robust, a second additional and time-displaced data collection has been conducted. Nevertheless, the findings still face the risk of limited validity. Consequently, one direction for further investigation of governance mechanisms could be the a more comprehensive approach. Following the arguments of Blohm *et al.* (Blohm *et al.*, 2018) on context-sensitivity, it would be important to take a crowdfunding type-specific focus on governance mechanisms (Cumming, Meoli and Vismara, 2019). For example, conducting an in-depth analysis on governance mechanisms in the specific types of crowdfunding. This may lead to an even better understanding on the application of governance mechanisms for each type of crowdfunding.

In addition to the suggested investigation of the presented governance mechanisms among each type of crowdfunding, further research is needed on the context of the applied governance mechanisms in crowdfunding. Existing research on corporate governance suggests strong links between country-level and corporate-level governance (Doidge, Andrew Karolyi and Stulz, 2007; Almaskati, Bird and Lu, 2020). Consequently, supplementary research is needed to investigate the relationship. between national legislation or governance and crowdfunding

governance. This would also extend the comprehensive research on the importance of geographical determinants between crowdfunding project and capital-givers from the crowd (Agrawal, Catalini and Goldfarb, 2011; Bechter, Jentzsch and Frey, 2011; Burtch, Ghose and Watal, 2013b).

In addition, the presented findings rely on the analysis of crowdfunding projects. However, governance mechanisms may not only be integrated and applied by the projects themselves but also by crowdfunding platforms. Keeping in mind that crowdfunding projects present themselves within the boundaries of platform-provided templates, another exciting direction of research could be an additional platform-specific analysis of governance mechanisms. A first small step into this direction could be the presented baseline governance in chapter 5. Further research is necessary to better differentiate which governance mechanisms can be realized by which stakeholder and how they impact the funding process.

So far, the findings of the dissertation do not cover precise details on the operationalization on the defined governance mechanisms. Consequently, future research could delve into defining design principles for adequate integration of governance mechanisms on both platform and project level. Theoretical knowledge on how to systematically apply effective governance mechanisms in crowdfunding is scarce. However, research needs to keep the context-sensitivity of both crowdfunding and governance in mind. Future research should choose a more differentiated or sophisticated approach to account for the different types of crowdfunding as well as for the geographical challenges of governance.

Another interesting direction for future research on governance mechanism is the related principal agent theory with the challenge to overcome information asymmetries. Further investigation of governance mechanisms in the light of the principle agent theory should go into deeper detail on how specific mechanisms help to overcome hidden information (adverse selection) or hidden action (moral hazard).

In this vein, future research should address the effect of governance mechanisms not only during but also after the funding process. By doing so, especially the effects of crowdfunding governance on moral hazard of projects and their initiators can be analyzed. This could be done through a longitudinal study, where the crowdfunding

projects' performance after successfully finishing the funding process is observed and investigated in detail.

9.3 Integration of Crowdfunding Project Characteristics

Third, the findings of dissertation are based on characteristics of crowdfunding projects as unit of analysis. Although, the findings were derived from a comprehensive data set, the results may not be solely based on the observed project characteristics. For example, the findings show that certain project characteristics or governance mechanisms have an impact on funding behavior of the crowd.

However, research specifically on funding behavior of individual capital-givers from the crowd is scarce. Subsequently, there is great potential for future research to extend the results of this dissertation by applying the results on research on capital-givers of the crowd to examine not only the effect, but also the cause of responsiveness towards certain project characteristics or governance mechanisms. Addressing this issue, may strengthen the findings of the dissertation and shed light into the seldomly analyzed behavior patterns of capital-giver from the crowd.

With this in mind, it is important to understand the dynamics in current research in the field of crowdfunding (McKenny *et al.*, 2017; Short *et al.*, 2017). Besides the presented research perspectives and challenges, crowdfunding is analyzed from many different theoretical perspectives. For example, there is research from disciplines like accounting, economics, finance, organizational behavior, human resource management, information management, strategic and operations management, political science, psychology and sociology that analyzes different dynamics in the field of crowdfunding (McKenny *et al.*, 2017).

Yet, there is no comprehensive integration of the different scientific fields, research activities and theoretical and practical findings. This cross-disciplinary approach could be an area for future research, since findings of existing research have considerable overlaps and the potential to promote each other.

10 Conclusion

Crowdfunding is a dynamic alternative form of finance and viable source of funding for various domain of application. Current research in the field of crowdfunding gains a lot of attention and already provides a growing number of findings on how successful crowdfunding projects differ from unsuccessful ones. Yet, it still remains not fully uncovered which crowdfunding project characteristics can increase the likelihood of successful funding and how projects can successfully control or govern the funding behavior of capital-givers from the crowd. The main objective of this dissertation was to provide a better understanding on why projects are either successful or fail. More specifically, three research streams were defined to achieve this goal.

The first stream focused on the investigation of crowdfunding project characteristics that stimulate funding behavior. It was based on a systematic literature analysis that aimed to create a better understanding on the crowdfunding process and the different research perspectives on crowdfunding project characteristics with influence on funding behavior of capital-givers from the crowd. The second research stream aimed to analyze project characteristics beyond directly observable and measurable characteristics. By applying the Consensual Assessment Technique and analyzing the results through Multivariate Analysis of Covariance, the findings showed the positive influence of creative and hedonic experiences on crowdfunding success. The third research stream focused on crowdfunding project characteristics with the potential to control or govern for funding behavior of capital-givers from the crowd. The presented results in this dissertation defined governance mechanisms in the field of crowdfunding. The effectiveness of these governance mechanisms was investigated by the application of a Qualitative Comparative Analysis.

Following these three research streams, this dissertation provides several theoretical contributions. First, it discovers the influence of creative and hedonic experiences on the funding success of crowdfunding projects. Second, the dissertation discovers different types of capital-givers and their responsiveness towards creative and hedonic experiences based on the behavioral pattern sensation seeking that is known in the field of professional investors. Third, the dissertation identifies and defines

governance mechanisms in the field of crowdfunding that aim to control and govern behavior of capital-givers from the crowd. Fourth, it shows how to configure governance mechanisms in order to increase the likelihood of successful funding and defines three context-dependent configurations of governance mechanisms. The dissertation provides valuable implications for practitioners with the main goal to increase the efficiency of the crowdfunding process and to eventually create more successful crowdfunding projects.

11 References

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