The Project-based View of Entrepreneurship

Exploring the Project-based View and its Implications for Start-ups

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Summary

This thesis explores the “project” in the entrepreneurial context, specifically the project-based view of start-ups. Start-ups are defined as entrepreneurial new ventures which have unstable business models, an open and simple organisational structure and which utilize innovative strategies for their development. The concept of temporary organisation is placed within the entrepreneurial context to define possible scenarios for the project-based view. The study is guided by the following research questions:

How does a project-based view unfold in the start-up context?
What is the impact of embracing a project-based view for a start-up?

There is a limited number of studies elaborating on the link between project management and entrepreneurship. This study aims at contributing to an evolving body of knowledge integrating project management and entrepreneurship by building new theory regarding the application of the project metaphor by start-ups. Based on the existing research linking project management and entrepreneurship through the concept of the temporary organisation, this study explains the process of embracing a project-based view of start-ups as well as its implications on start-ups. These findings will be supported by the development of a visual model and propositions for further research.

The study is using grounded theory as a research methodology which is considered to be appropriate given the nascent state of the previous research as well as the underlying research questions. In total eleven unstructured and semi-structured interviews were conducted with start-ups which comply with the synthesized start-up characteristics. The data analysis benefited from using open, axial and finally, selective coding as suggested by the grounded theory approach.

Answering the first research question, the study’s findings are reflected in a model which explains how the project-based view unfolds. Overall, the process of a project-based view takes two directions: the external and the internal project-based view. The external project-based view - meaning that the whole start-up is seen as a temporary organisation - starts once the start-up team members decide to commit themselves to the project when the entrepreneurial opportunity is constructed. The start-up is then seen as being temporary due to external pressure and a bounded time period. However, although being temporary, the start-up still aims to transit to a permanent state. The internal project-based view suggests that the start-up’s strategy making process is followed by the strategy realization which is performed either by a sequence or by a multi-project approach, or a combination of both. Regarding the second research question, a project-based view enhances the start-ups’ operational and dynamic capabilities.

Keywords: Entrepreneurship, Project Management, Start-up, Project-based view
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*Diana Zharovskikh*

*All my appreciation goes to my partner Arne for always being there and to my mum for all support along the way.*

*Liv Langmaack*

Umeå, 2\textsuperscript{nd} of January, 2017
# List of Abbreviations

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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>B2B</td>
<td>Business to business</td>
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<td>B2C</td>
<td>Business to client</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<td>CTO</td>
<td>Chief Technical Officer</td>
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<tr>
<td>EPSRC</td>
<td>Engineering and Physical Sciences Research Council</td>
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<td>HR</td>
<td>Human resources</td>
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<tr>
<td>INSEAD</td>
<td>Business school</td>
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<td>IPMA</td>
<td>International Project Management Association</td>
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<tr>
<td>MBA</td>
<td>Master of Business Administration</td>
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<tr>
<td>MVP</td>
<td>Minimal Viable Product</td>
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<td>NBD</td>
<td>New Business Development</td>
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<td>NPD</td>
<td>New Product Development</td>
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<td>PMI</td>
<td>Project Management Institute</td>
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<tr>
<td>SME</td>
<td>Small and medium-sized enterprises</td>
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<tr>
<td>UK</td>
<td>United Kingdom</td>
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<tr>
<td>UMU</td>
<td>Umeå Universitet (Umeå University)</td>
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1. Introduction

This chapter contains the background of the undertaken study. The authors outline the current research stream and present the research questions and objectives based on the nascent theory in the area of linking project management and entrepreneurship. Furthermore, the authors discuss the unit of analysis, the study’s key concepts, their motivation to undertake this particular research as well as the theoretical and practical contributions of the study. Finally, the outline of the research disposition is presented.

1.1. Background

Among the fifty inspirational quotes for entrepreneurs cited in one of the popular business journals, the following quote by a famous American humourist and author Mark Twain was mentioned: “The secret of getting ahead is getting started. The secret of getting started is breaking your complex overwhelming tasks into smaller manageable tasks, and then starting on the first one” (Harroch, 2014). This quote as well as many others which are addressed to entrepreneurs can be applied both to developing a start-up and implementing a project. Indeed, many of the start-up methodologies like the Lean start-up (see Blanc, January, 2010; Reis, 2011, p. 17f) or agile project management which are popular among entrepreneurs, are based on the assumption that developing a start-up is somewhat close to project delivery. However, surprisingly, the academic linkages between the areas of project management and entrepreneurship are scarce (Kuura et al., 2014; Trokic, 2016).

Entrepreneurship being an evolving discipline still lacks well established definitions of the key concepts as well as a clear understanding of its boundaries and its approach (Low, 2001, p. 18f; Bruyat & Julien, 2001, p. 166). However, the benefits of supporting entrepreneurs in their development are doubtless. Apart from such benefits of entrepreneurship as employment creation, productivity growth, production and commercialization of high-quality innovations and job satisfaction of employees (Bhave, 1994; Henry & Treanor, 2013, p. 249; Davidsson, 1994, p. 397), the following benefits are attributed directly to start-ups: championship in innovation, job creation and driving the digital economy (Kollmann et al., 2016). Nevertheless, the entrepreneurial success rate is rather low: the chance of success after getting venture capital is still only 25% (Compass, 2015, p. 16). Therefore, new venture creation as a core of entrepreneurship requires scholars’ attention (Rasmussen, 2011, p. 448). Moreover, the lack of a clear definition of the “start-up” which is one of the best representations of the new venture creation process may create validity problems (Luger & Koo, 2005, p. 17).

Furthermore, project management being ancient in practice (Packendorff, 1995, p. 319; Garel, 2013, p. 665f), gained academic attention only in the last decade of the 20th century (Garel, 2013, p. 663). The focus of understanding the “project” concept which is central to project management research, has shifted from seeing it as “tool” in order to achieve organisational goals (Packendorff, 1995, p. 325f; Aniff & Fernie, 2008, p. 2) towards the understanding of project as a complex, socially constructed setting (Cicmil et al., 2006, p. 676, 684). The concept of the temporary organisation underpins the research stream which aims to rethink project management (Cicmil et al., 2006, p. 676). Scholars are invited to contribute to rethinking project management research by widening the boundaries of project management (Cicmil et al., 2006, p. 684),
researching about project complexity, about projects as social settings and value creation in projects (Winter et al., 2006, p. 642). Such a view on project management is designed to make project management more valuable for practitioners and thus, increase its importance (Blomquist et al., 2010, p. 5).

When discussing the linkages between both areas, Kuura et al. (2014) noticed that along with New Product Development (NPD), New Business Development (NBD), innovation and the entrepreneurial project, the concept of temporary organisation is the one linking project management and entrepreneurship. It is suggested to embrace a project-based view when discussing entrepreneurship due to the temporality of entrepreneurial acts (Lindgren & Packendorff, 2003, p. 86). Through the identification of the dimensions and conditions (see Lundin & Söderholm, 1995, p. 451; Jacobsson et al., 2013; Jacobson et al., 2015) of temporary organisations in the entrepreneurial context the following two scenarios are seen in academia. Firstly, projects are seen within the new venture as tools which are undertaken in sequence or in parallel enhancing learning capabilities of start-ups (Midler & Silberzahn, 2008, p. 485). The second scenario suggests to see the entire start-up as a temporary organisation due to an understanding of the time-limited context (Busenitz et al., 2003, p. 302f), expectations of external stakeholders, the role of teams in entrepreneurship (McKenzie et al., 2007, p. 29) and the understanding of the transition path from the stage of opportunity construction to the stage of opportunity exploitation (Shane and Venkataraman, 2000; Marmer et al., 2011, p. 10). However, despite of the recent attention of scholars to this concept (see Jacobsson et al., 2013; Jacobson et al., 2015), it is still quite unexplored (Burke & Morley, 2016, p. 1248), especially in the entrepreneurial context.

Therefore, the research on the project-based view of start-ups contributes not only to the nascent area of linkages between project management and entrepreneurship (Kuura et al., 2014) but also improves the understanding of the start-ups themselves which can be considered of high relevance due to the benefits of start-up development for economies.

1.2. Theoretical Contributions

The study aims at enriching the theoretical knowledge of the project-based view of start-ups, hence contributing to establishing links between the areas of project management and entrepreneurship. The calls of the following researchers were addressed by the study:

1. First of all, the study of Kuura et al. (2014) highlighted the nascent character of the linkages between project management and entrepreneurship in academia, while in practice the disciplines seem to be stronger connected. The scholars encouraged further research to integrate these two areas to produce synergy (Kuura et al., 2014, p. 228).

2. In project management, existing research moves from “technical and industry specific issues” towards the broader organisational context and towards the understanding of the role of the interpersonal aspect of project management (Pollack & Adler, 2015, p. 247). Researchers are invited to rethink project management by reflecting upon practitioners concerns and by using interdisciplinary approaches while paying attention to methodological issues of such research (Winter et al., 2006, p. 646).
3. Furthermore, the research on the “temporary organisation” concept as a linking one between project management and entrepreneurship, is considered to be relevant for further research (Burke & Morley, 2016, p. 1248), especially in connection to the context in which temporary organisations exist (Lundin & Steinthorsson, 2003, p. 248). Additionally, Lindgren & Packendorff (2003, p. 97ff) encourage scholars to embrace a project-based view of entrepreneurship in order to improve an understanding of “all entrepreneurial activities in society”, including start-ups.

4. Moreover, the area of entrepreneurship is emerging in academia, thus inconsistency of different definitions and its measures creates validity problems (Luger & Koo, 2005, p. 17). Therefore, the synthesis of the start-up definition may provide the basis for further research.

1.3. Practical Contributions

Though the study aims to build theory and thus is not producing any concrete toolset or tested propositions, several practical and social contributions can be derived which are listed below.

1. The study’s findings are relevant for internal stakeholders of start-ups such as founders, CEOs and team members as their view on themselves and their start-up will be challenged and hence may provide the groundwork for further development which is especially relevant considering the impact of entrepreneurship on the economy in terms of driving job creation and economic growth (Bhave, 1994; Henry & Treanor, 2013, p. 249; Davidsson, 1994, p. 397).

2. Moreover, as the results are shared with the study participants, they will be able to reflect upon the given propositions and conclusions. The findings may sharpen a conscious understanding of project management in their entrepreneurial context and since the perspectives of different founders are included in the study, the participants may benefit from benchmarking.

3. For external stakeholders of start-ups such as governmental bodies, incubators, consulting companies, accelerators and educational institutions, the study’s findings will also provide a better understanding of start-ups: the way the start-ups currently see the term “project” and the way the project-based view is applied, will give insights into e.g. how to counsel them or how to design programmes or workshops that support entrepreneurs in their development.

1.4. Research Objectives

As outlined in the theoretical contributions, to date there are only few and very broad, high-level implications and linkages in tying project management and entrepreneurship. This study aims at improving this understanding by revealing how the project metaphor is applied in the entrepreneurial context, namely within start-ups. The authors’ objective is to uncover what role the “project” concept plays in the entrepreneurial context. As such, the authors aim at exploring the process of how a potential project-based view unfolds. In particular, the authors want to analyse how the start-up founders make use of a project-based view within their start-up at the point of the research, while at the same time aim at examining how the founders initially started to embrace a project-based view and what role it plays in their further development. Finally, one of the major objectives of the study is to provide a model as an outcome of the data collection and
analysis process which will visualize the process of adopting a project-based view within the start-up context contributing to the nascent theoretical research area.

Further, the authors aim at discovering what kind of impact embracing a project-based view has on the interviewed start-ups and which implications this has on the start-up as a whole. Gaining such insights in this research area will provide a platform for further studies in the area of project management and entrepreneurship by outlining the role of the project in the start-up context. In brief, the research objectives can be defined as follows:

1. Discover how the start-up founders make use of a project-based view and explore which process underpins the project-based view of start-ups;
2. Develop a model which visualizes the process of a project-based view in the start-up context and which contributes to the current state of academia;
3. Identify what impact taking a project-based view has for a start-up by exploring its implications on the start-up.

1.5. Research Questions

As highlighted by Kuura et al. (2014, p. 223), further studies in the chosen research area are essential given the possible benefits from the linkages between the areas. To contribute to reveal these potential benefits, this study has been undertaken with the objective to, first of all, understand how a project-based view unfolds from a process perspective. Further, the impacts of adopting a project-based view will be uncovered. Given the explorative character of the study and considering the highlighted research objectives, the study will be guided by the two following research questions:

*How does a project-based view unfold in the start-up context?*
*What is the impact of embracing a project-based view for a start-up?*

Consequently, the first research question aims at exploring the process of how the project-based view unfolds on a broad level, while the second questions goes deeper into the consequences of adopting such a view.

1.6. Unit of Analysis

Bryman & Bell (2015, p. 316) reflect on the relevance of having a clear view on the unit of analysis when conducting research as it explains what is included in a study and what is excluded. In this regard, the unit of analysis describes the entity which is the core of the study and thus the research object which, for instance, can be an organisation as a whole or a number of sub-units such as departments or working groups (Saunders et al., 2009, p. 147). Miles & Huberman (1994, p. 26) define the unit of analysis as the heart of the study.

For the purpose of this study, seven start-ups have been interviewed in two rounds of interviews complying with the start-up characteristics synthesized from the literature. Consequently, these interviewed start-ups comprise the sample and the core of the study with the major criterion of not having a financially viable business model yet. More specifically, the focus is not on the start-up as a whole but on one of the founders of the start-up as the founders or co-founders are considered to reflect most accurately on a
potential project-based view since they have been with the start-up from the very beginning. Data will be sampled from the founder by conducting interviews and finally, as Miles & Huberman (1994, p. 26) suggest as an option, the study’s focus will take a process perspective. The unit of analysis of this thesis will consequently be the process of how a project-based view unfolds in the entrepreneurial context from the founder’s perspective. The authors consider this to be relevant for the purpose of full understanding the “project” in the entrepreneurial context and gaining an understanding of when a project-based view is taken and how it unfolds.

1.7. Motivation for Research

Several reasons guided the authors to choose the topic under consideration. The authors - having both an academic background in strategic project management and practical experience of working on a project basis in big companies - were interested in project management as a way to bring change and innovations and make organisations more flexible and receptive to the impact of the external environment. At the same time, in the media, business journals and in their personal environment the authors could observe how project-based practices like agile methodologies or the lean start-up methodology are applied by entrepreneurs and specifically start-ups and how start-ups outperform their corporate competitors. Thus, discussing the link between project management and entrepreneurship was considered to be an interesting research area. Moreover, since the links between project management and entrepreneurship are relatively new and only implicit in academia, the authors considered it to be relevant to gain an understanding of how start-ups embrace a project-based view and what the possible implications of embracing such a view are.

In addition to this, the grounded theory approach, which is considered to be appropriate for the developed research questions, is challenging and thus interesting to undertake while working on the Master thesis. Furthermore, the researchers who are both interested in working in an entrepreneurial environment were able to establish relationships with start-ups from various countries and industries.

Finally, the authors believe that the study’s findings will contribute to establishing links between project management and entrepreneurship and thus improve the quality of further research in this area. Yet, the study’s findings would not only provide a theoretical contribution but at the same time may provide a practical contribution for the start-ups which was also motivating the authors to undertake the study.
1.8. Relevant Concepts

The relevant concepts which are discussed and used throughout the study are shortly introduced in the following.

Entrepreneurship - area of research which “involves individuals and groups of individuals seeking and exploiting economic opportunity” (McKenzie et al., 2007, p. 29).

Entrepreneurial opportunity - “the chance to meet a market need [...] through a creative combination of resources to deliver superior value” (Ardichvili et al., 2003, p. 108).

Business model - “the underlying logic of a firm by which it creates value” (Nair et al., 2013, p. 959).

Start-up - entrepreneurial new ventures possessing certain characteristics (see Table 2), which were created as a result of the entrepreneurial opportunity construction by entrepreneurs, following their founders’ perceptions (discovery process) and later making decisions to exploit those opportunities.

Project - a “temporary endeavour undertaken to create a unique product, service, or result” (PMI, 2013, p. 3).

Project as a temporary organisation - organisation aimed to reach a clearly stated objective to create a unique product in a certain time period, requiring managerial practices for task organisation (Packendorff, 1995, p. 327).

Dynamic capability - “the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments” (Teece et al., 1997, p. 516).

Operational capability - performance of administrative and operational functions necessary to accomplish tasks and to account for speed, quality and efficiency (Teece et al., 1997, p. 328f).
1.9. Outline of the Research Disposition

The following outline of the research disposition gives an overview of the study and its structure.

Chapter 1: *Introduction* – This chapter allows readers to understand the background of the study, the reasons why the authors consider exploring the project-based view of start-ups to be relevant and which research questions and research objectives are guiding the study.

Chapter 2: *Theoretical Methodology* – This chapter explains the authors’ philosophical assumptions (ontology, epistemology and axiology) and the approach to literature search and selection. Moreover, the research approach chosen for this study is explained.

Chapter 3: *Theoretical Background* – The theoretical background aims at reviewing and mapping the theoretical key concepts and definitions to guide the research further as suggested by the grounded theory approach. Firstly, the authors elaborate on the entrepreneurial context, reviewing the scope of the entrepreneurial research, specifically focusing on the new venture creation process and defining the start-up. Further, project management studies were reviewed to provide a definition of the “project”. In a next step, both research areas, entrepreneurship and project management, are reviewed to elaborate on existing links in the literature and to understand the direction of the current research stream. In the end, a reflection upon the theoretical background is provided.

Chapter 4: *Research Methodology* – This chapter outlines and discusses the chosen research strategy and the research design of the study. Further, the chapter elaborates upon the data collection by reflecting on the data collecting methods and process, by discussing the interview design and the choices made when sampling the study participants and by providing a brief overview of the study participants. In a next step, the data analysis process - being quite specific for the grounded theory approach - is explained. Moreover, the authors discuss the value of the research in terms of the quality criteria, such as credibility, transferability, dependability, confirmability and authenticity. Finally, the ethical principles guiding the study are highlighted.

Chapter 5: *Analysis* – The chapter discusses the analysis of the interview data. The first order concepts, second order themes and core categories being essential elements in grounded theory analysis are reviewed. The second order themes are further discussed and explained with regards to the theory and in accordance with the research questions.

Chapter 6: *The Study’s Findings* – Referring to the previous chapter, this chapter aims at answering the research questions by providing a model which visualizes the relationships between the themes and categories identified in the Analysis chapter and at suggesting propositions based on the study’s findings.

Chapter 7: *Concluding Thoughts* – The final chapter summarizes the findings referring to the study objectives as well as presents the limitations of the study and recommendations for further research.
2. Theoretical Methodology

This chapter highlights the theoretical methodology by explaining the search process and the selection of the literature for the theoretical background. Further, it elaborates upon the position of the authors considering the research philosophy: ontological, epistemological and axiological assumptions. Finally, the research approach will be discussed.

2.1. Research Philosophy

The research philosophy underpins the research strategy and the methodology of research (Saunders et al., 2009, p. 108; Eriksson & Kovalainen, 2015, p. 12). Its understanding improves the design of the study which aims at theoretical or empirical contribution or both (Eriksson & Kovalainen, 2015, p. 12). The understanding of the basic philosophical considerations will define the direction of the research itself from formulation of the research question to drawing the conclusions of the study (Eriksson & Kovalainen, 2015, p. 12). The research philosophy is formed as a sum of practical considerations and the authors’ viewpoint on knowledge and its development process (Saunders et al., 2009, p. 108). Those considerations, namely ontological, epistemological and axiological, may constitute a unifying view or a paradigm of a researcher (Eriksson & Kovalainen, 2015, p. 14). The following sections explain the philosophical stances which strongly impact the choice of the research strategy and the research design of this thesis.

2.1.1 Ontological Considerations

Ontological assumptions define the researchers’ viewpoint on how the world operates (Saunders et al., 2009, p. 110). As mentioned by Bryman & Bell (2015, p. 34), the central question is whether the world is socially constructed or is an objective phenomenon. When defining the positions, two have to be mentioned: objectivism and constructionism. From the objectivist point of view “social entities exist in reality external to social actors” (Saunders et al., 2009, p. 110), thus the reality itself is objective (Eriksson & Kovalainen, 2015, p. 14). Therefore, organisations are seen to be “tangible” entities which are quite similar to each other due to their standardized norms which pressure individuals to act in a certain way (Bryman & Bell, 2015, p. 32). On the other hand, from a constructivist point of view, reality is created by social interaction (Eriksson & Kovalainen, 2015, p. 15; Bryman & Bell, 2015, p. 33; Saunders et al., 2009, p. 111). Organisations differ from one another due to the constant change of their daily routines and cultures shaped by individuals, their interaction and different interpretations (Bryman & Bell, 2015, p. 33; Saunders et al., 2009, p. 111).

For the purpose of this study, the authors see reality - the entrepreneurial landscape - as complex and subjective and created by the interaction of social entities. Based on the views of Lindgren & Packendorff (2009, p. 33f), entrepreneurship is seen as constantly changing reality shaped by the evolving understanding of its actors, for instance entrepreneurs, their ongoing interaction and their constant network creation. Thus, adopting objectivism as an ontological viewpoint is misleading, as it oversimplifies such interactions (Lindgren & Packendorff, 2009, p. 28). Moreover, Anderson et al. (2012, p. 959) argue that adopting constructivism in entrepreneurial research may help
to overcome fragmentation of the previous academic studies. Besides that, the project itself is seen as a highly subjective phenomenon. Cenil et al. (2006, p. 684) highlight the importance of awareness of philosophical assumptions in project management and call for a shift towards a more constructivistic position. Blomquist et al. (2010, p. 6) advocate for the use of a “project-as-practice” approach which sees a project as “a social and organized setting”.

Since this study is based on exploring the process of how the project-based view unfolds in the entrepreneurial context, thus mirroring and deepening the understanding of project management in the entrepreneurial context, the authors believe that taking a constructivist viewpoint will allow to incorporate all relevant aspects and answer the research questions most accurately.

### 2.1.2 Epistemological Considerations

Epistemological claims are closely linked to ontological claims (Eriksson & Kovalainen, 2015, p. 14) and define acceptable knowledge in the research area (Bryman & Bell, 2015, p. 26; Saunders et al., 2009, p. 112). Long et al. (2000, p. 190) define epistemology as “the basis of knowledge and in what manner knowledge can be transmitted to others”. Two contrasting positions are relevant in this regard: positivism and interpretivism. The realism which is in between positivism and realism, is somewhat close to positivism and sees observation of the phenomena as a way to produce credible conclusions (Saunders et al., 2009, p. 114). However, the direct realism claims that insufficient observations lead to misinterpretation and critical realism assumes that we perceive reality based on our feelings and sensations which might be different from the actual phenomena (Saunders et al., 2009, p. 115). On the other hand, positivism is closer to natural science: it assumes that the observation of phenomena is external to the process (Saunders et al., 2009, p. 113). Moreover, from a research design perspective, within positivism hypotheses are produced from the theory and are tested by collecting data in a value-free way (Saunders et al., 2009, p. 114). The key principles of positivism were also discussed by Bryman & Bell (2015, p. 28): phenomenalism, deductivism, inductivism, value-free research and finally, importance of scientific statements. On the other hand, interpretivism critiques positivism for being inapplicable to social actors since they do not always follow natural order (Bryman & Bell, 2015, p. 28). Research based on interpretivistic considerations highlights the differences between social actors and uses empathy to address the research question (Saunders et al., 2009, p. 116). As outlined by Klein & Myers (1999, p. 69), interpretivism is aimed at producing understanding about the phenomena and at building theory. According to the identified principles by Klein & Myers (1999, p. 72), interpretivism can be characterized as:

- an iterative process of understanding, moving from the understanding of certain parts to the general understanding;
- a deep understanding and reflection upon the context;
- interaction between the researcher and the objects of the study;
- “abstraction and generalization” of the observable phenomena by introducing theoretical concepts;
- “sensitivity” to multiple and not always coherent theoretical concepts guiding the research, as well as multiple interpretations of the social phenomena and the biases of the study participants.
In regards to this study, interpretivism as a position will be adopted. As the study aims at building theory in the field of linking entrepreneurship and project management by improving the understanding of how a project-based view evolves in the start-up context and what impact it has, the interpretivist stance is aligned with this purpose. Moreover, interpretivism supports the view of entrepreneurship as a complex and dynamic area of research influenced by interaction and interpretations of social actors. Besides that, the authors believe empathy is required to understand the implications of the founders’ perspective on the project-based view.

2.1.3 Axiological Considerations

Axiology, as a study of “judgements about values” (Saunders et al., 2009, p. 116), accompanies all the steps of our life (Hart, 1971, p. 29). It considers the ethics in terms of the role of values in the research and the position of the researcher to the object of study (Wahyuni, 2012, p. 69), thus guiding each stage of the research process and defining the choices which are made by scholars (Saunders et al., 2009, p. 116). Moreover, Biedenbach & Jacobsson (2016, p. 139f, 152) notice a recent recognition of values in project management research and conclude that consideration of values and reflection upon them is important. There are two contrasting axiological views: the first considers research as value-free while the other states that knowledge is value-bound (Saunders et al., 2009, p. 119).

The authors believe that they are value-bound in their research. To begin with, both authors, Diana Zharovskikh and Liv Langmaack, have entrepreneurs within their social network where they found the start-ups to interview. Moreover, Diana Zharovskikh volunteered in a competition for young entrepreneurs, and she is currently evaluating applications for this competition. Besides that, Diana Zharovskikh belongs to the initiative of young leaders of the World Economic Forum - Global Shapers - where the call for potential study participants was placed. Furthermore, the authors hold degrees in business and currently study strategic project management. This has influenced the authors’ judgement. Both authors consider embracing a project-based view of the entrepreneurial venture to be beneficial: it allows better management of new ventures and hence increases the probability of new venture survival. Considering the framework of Biedenbach & Jacobsson which defines the role of values in project research (2016, p. 149), the authors tend to position themselves in the “hypermodern perspective” which emphasizes the entrepreneurial and socially-constructed context of project management.

Therefore, considering the active role of both authors in the research and their awareness of the potential impact of the personal values and biases, the researchers designed the study to be transparent about their assumptions, values and preconceptions adopted in order to deliver credible theoretical and practical contributions to the field linking entrepreneurship and project management. The chosen research approach for this thesis is explained and justified in the next section.
2.2. Research Approach

Research approaches indicate the relationship between theory and research in terms of the role of theory within a piece of research (Bryman & Bell, 2015, p. 23). Ghauri & Groenhaug (2010, p. 15) see the different research approaches as the ways of establishing what is true and false. Bryman & Bell (2015, p. 23ff) distinguish three different research approaches: the deductive, the inductive and the abductive approach.

The deductive approach is the most common research approach in natural sciences and is often understood as scientific research (Saunders et al., 2009, p. 124; Bryman & Bell, 2015, p. 23). Within this approach conclusions are drawn by logical reasoning: the researchers deduce hypotheses from the existing body of knowledge in academia which are then exposed to empirical scrutiny in terms of testing in order to be able to either accept or reject the hypotheses (Ghauri & Groenhaug, 2010, p. 15). As such, in this type of research approach, the theory and the deduced hypotheses come first and influence the entire research process (Ghauri & Groenhaug, 2010, p. 15; Bryman & Bell, 2015, p. 23). Being seen as the major research approach for quantitative studies, the task of the researcher is to operationalize the concepts and variables that constitute the hypotheses which will be further measured quantitatively (Saunders et al., 2009, p. 125; Bryman & Bell, 2015, p. 23). Therefore, deduction starts from a set of general premises proceeding to a more specific conclusion while induction, in contrast, takes the opposite stance going from specifics to generalisations (Ketokivi & Mantere, 2010, p. 316). In induction, theory is the outcome of the research (Bryman & Bell, 2015, p. 25). The process of induction aims at generalizable inferences made from observations in order to build theory (Bryman & Bell, 2015, p. 25; Saunders et al., 2009, p. 125).

The inductive approach is characterised by a less structured process in comparison to deduction (Saunders et al., 2009, p. 126). Research using an inductive approach is rather concerned with the contexts in which events or behaviours take place (Saunders et al., 2009, p. 126). The focus is on understanding the way in which humans interpret their environment opposed to the major focus of describing phenomena in the deductive approach (Saunders et al., 2009, p. 126). Due to the focus on understanding, the inductive approach is usually associated with qualitative studies (Bryman & Bell, 2015, p. 25). Ketokivi & Mantere (2010, p. 316) stress the dilemma in induction which is the lack of generalizability as “we are only able to observe particular events, not generalities, and all events we observe are past occurrences”. Induction lacks the “solid normative foundation of deduction” (Ketokivi & Mantere, 2010, p. 316).

Yet, Bryman & Bell (2015, p. 23f) stress that the distinctions between both approaches are not clear-cut since both approaches comprise elements of each other: the last step of deduction involves induction - including the findings from the deductive study into the existing stock of theory - while in the inductive approach the researcher may want to collect further data to proof under which conditions a theory might hold or not. This leads to the third research approach type, the abductive approach, which tries to overcome the limitations of both approaches (Bryman & Bell, 2015, p. 27). Abduction is associated with selecting the “best explanation from a set of competing explanations” (Ketoviki & Mantere, 2013, p. 81). The approach outlines the limited rationality of the researcher and stresses the relevance of cognitive reasoning in theory building (Bryman & Bell, 2015, p. 27). Abductive is defined by Ketoviki & Mantere (2013, p. 72) as an approach that starts with a “surprise” and then tries to explain it while these surprises...
may come up in empirical observations which existing theory cannot explain. This implies to go back and forth between the social world as source to generate theoretical ideas and going back and forth with the literature to seek for explanations (Atkinson, Coffey & Delamont, 2003, p. 43).

Before choosing the appropriate research approach for this thesis it is important to reflect upon the objectives of this thesis. The objective of the study is to improve the understanding of the link between project management and entrepreneurship on a high level with two research questions. As outlined, both research areas - project management and entrepreneurship - are emerging and evolving (Kuura et al., 2014, p. 216) and the theory linking both areas is scarce. Consequently, given the scarce theoretical foundation, the objective is to build new theory that adds to the existing body of knowledge. The focus is on gaining a deep understanding of how start-ups embrace a project-based view in the context of their venture. As such, an inductive approach is taken going from observed specifics to generalizations. These observations are made by the interviews that are held during the research process. Yet, as mentioned by Saunders et al. (2009, p. 149), the inductive approach does include deductive elements which is apparent in the approach taken for this master thesis since an iterative process is established that includes to collect more data once a theoretical reflection has been done to see in which conditions the discovered concept holds (Bryman & Bell, 2015, p. 25). Also, a literature review is done beforehand to get insights into the existing linkages between the research areas. As such, the research approach under consideration includes inductive as well as deductive elements. This argumentation of the proposed research approach is not only based on the philosophical assumptions since Saunders et al. (2009, p. 124) argue that deriving a specific research approach from the epistemological and ontological assumptions can be misleading.

2.3. Approach to Literature Search and Selection

The purpose of the literature review is to get an overview of the existing literature of these two evolving research areas and especially on the elements that are mentioned in academia linking both fields. As highlighted previously, an inductive approach is taken which aims at building new theory from observations in an almost unexplored area. Even though there are opposing views on the relevance of a literature review and the potential bias that may arise from diving deep into literature, the authors consider having a general understanding of the existing concepts in academia to be crucial which is supported by many grounded theory researchers (Suddaby, 2006, p. 635; Ng & Hase, 2008, p. 159). Given the literature’s scarcity on the topic, finding the key papers for this assignment was quite challenging and had to be done carefully in order not to leave out any perspectives on the topic in academia. For the search of articles, the Umeå library search engine and the database of the Heriot-Watt University in Edinburgh were used as well as Google Scholar.

For the section “Entrepreneurial context and start-ups” in the theoretical background, the scarcity of literature and its ambiguousness regarding the definition of a start-up required to take into consideration several sources like the life-cycle literature, various articles in the area of entrepreneurship, as well as practitioners’ studies e.g. from consulting companies. The main keywords used for the literature search for this chapter in the databases were (also in combination): entrepreneurship, entrepreneurial
opportunity, start-up, new venture, new venture creation, business founder and organisational growth.

For the section “Evolution of project management research and understanding of the project”, the authors aimed at showing all the variety of perspectives and the literature evolvement over time. It was a challenge to find original sources representing the traditional project management view as some of the sources are quite old. However, by the search in the several databases appropriate sources were found. The main keywords used for the literature search for this section were (also in combination): project, project management, history of project management, evolution of project management, PMI, traditional project management, rethinking project management, temporary organisations and review.

The chapter “Linking Project Management and Entrepreneurship” was challenging in terms of the literature search since both areas usually do not overlap and barely mention and cite from the other research area: the term entrepreneurship is not always explicitly mentioned in project management literature and vice versa (Kuura et al., 2014, p. 219). For instance, in project management literature the connection to entrepreneurship happens rather implicitly by mentioning “opportunities” and “available resources” instead of referring to the term “entrepreneurship” (Kuura et al., 2014, p. 219). Consequently, especially discovering the historical linkages in the area was cumbersome. The main keywords used for literature search for this chapter were (also in combination): project-based view, entrepreneurial project, project metaphor, opportunities, innovation, innovative projects, project entrepreneurs, temporary organisation and entrepreneurial competencies.

According to Whetten (1989, p. 491), it is crucial to select papers that represent “good theory”. This means that the chosen papers should be peer reviewed articles, should have been cited by other authors to reflect their thoroughness, be published in established journals and provide some new and interesting aspect or perspective on the topic (Whetten, 1989, p. 494). These were the very first criteria to be applied in selecting articles, though due to the nascent character of academia they could not always be met, for instance the aspect of citations. Given the nascent research area and the resulting lack of scientific articles e.g. for defining start-ups and for the chapter of linking project management and entrepreneurship, also conference papers and other non-traditional sources such as papers of consulting companies were included which were found online. In these cases, it was made sure that the issuing institutions had a high reputation so that they could be trusted to provide reliable results. Further, at any point possible, the authors tried to cite from the original source in order to reduce bias. Especially in the part of traditional project management and the chapter of linkages between project management and entrepreneurship this was challenging as some articles date back to the 1950’s and 1960’s and are as such not always available in the online databases.

At this point it is also worth mentioning that the literature research followed a process character. Following the grounded theory methodology, going back and forth between academia and the data collected is seen as a pragmatic and frequently used approach (Ng & Hase, 2008, p. 159). When the first promising concepts were discovered in the data analysis, going back to academia to check if such concepts have been discussed and have been researched in the context of project management in entrepreneurship
became common practice. For instance, when the concept of agility was mentioned in the first round of interviews, the authors went back to literature to search for the concept of agility in the context of entrepreneurship. Consequently, the literature search and selection were the on-going integral parts of this thesis research process which shaped and reshaped the data collection and analysis. Overall, the extensive literature search helped to refine and adjust the research questions and proved the vast gap existing in academia justifying the purpose of this study.
3. Theoretical Background

In this chapter the theoretical background for the topic under consideration is introduced, though it has to be pointed out that within the grounded theory methodology a clear theoretical framework is not existent due to the lack of literature in the research area. Firstly, the topic of entrepreneurship is introduced by elaborating upon the development of entrepreneurship in academia and upon how the creation of a new venture unfolds. Further, the theories on entrepreneurial opportunity are discussed with regards to the first stage of the new venture creation followed by presenting a definition of the “start-up”. Secondly, the topic of project management is introduced by presenting an overview of the evolution of the project management research. Thirdly, the authors elaborate upon both research areas by reflecting upon the existing links. The concept of “temporary organisation” which seems to be the foundational linking concept between both areas is, in a next step, further developed with regards to the entrepreneurial context. At the end the authors reflect upon the provided theoretical background.

3.1. Entrepreneurial Context and Start-ups

Entrepreneurial practice is one of the oldest in the human history (Landström, 2007, p. 3ff), though until recently there was a lack of research in this area (Kuratko, 2011, p. 10; Shook et al., 2003, p. 379). As noticed by Low (2001, p. 18), the rising interest to entrepreneurship as a field of research is driven by the changing business reality pushing the companies to think “entrepreneurially”. Besides that, given the economic benefits of entrepreneurship (employment creation, productivity growth, production and commercialization of high-quality innovations, job satisfaction of the employees) (Bhave, 1994; Henry & Treanor, 2013, p. 249; Davidsson, 1994, p. 397), many high-profiled scholars, research centers and educational institutions nowadays focus their attention on entrepreneurship as a field of research (Kuratko, 2011, p. 11; Ucbasaran et al., 2001, p. 3; Low, 2001, p. 17). However, there is still a lack of consensus in defining key constructs, the scope of entrepreneurial research, the approach to it and therefore entrepreneurship as a concept (Low, 2001, p. 18f; Bruyat & Julien, 2001, p. 166). The following section will define entrepreneurship as a field of research and elaborate on the new venture creation process as its key concept.

3.1.1 Entrepreneurship in Academia

Multiple studies tried to define entrepreneurship as a field of research (Davidsson, 2005, p. 1f). As mentioned by Bruyat & Julien (2001, p. 167), the following scholars have provided the foundation of the entrepreneurial research by identifying who an entrepreneur is: Cantillon, Turgot, Say and Schumpeter. All the authors discussed the “entrepreneur” and its role in the economic system, understanding individual capabilities and external factors impacting an entrepreneurs’ decision-making (Bruyat & Julien, 2001, p. 167). Later, individual characteristics and personality traits became prevailing in the entrepreneurial research (Shaver & Scott, 1991; Busenitz et al., 1996; Forbes, D., 1999; Lanny & Harry J., 1992; Low & MacMillan, 1988, p. 157). In this view an entrepreneur “causes entrepreneurship” (Gartner, 1988, p. 12), being driven by “a high need for achievement, high internal locus of control, and medium risk-taking propensity” (Korunka et al., 2003, p. 36). However, these studies were criticized for
being “deficient” since they focused only on entrepreneurial traits and behaviour (Van De Ven, 1993, p. 212f; Gartner, 1988, p. 12).

At the same time, several scholars saw entrepreneurship as a process of creation of new organisations (Lumpkin & Dess, 1996, p. 136; Gartner, 1988, p. 26; Low & MacMillan, 1988, p. 141; Cole, 1949 cited in Davidsson, 2005, p. 1). Low & MacMillan (1988, p. 141) saw this definition as an encouraging multi-disciplinary approach which allows to understand the actual scope of the discipline. Gartner (1988, p. 26) stated that viewing entrepreneurship from this position is helpful for the identification of its borders: “entrepreneurship ends when the creation stage of the organisation ends”. Supporting Gartner’s argumentation, Venkataraman (1997, p. 119) saw entrepreneurship as a study of how, by whom, and with what consequences entrepreneurial opportunities are discovered, evaluated and exploited. Later, Shane & Venkataraman (2000) proposed a framework for entrepreneurial activity which became foundational in the field, due to focusing on both, the entrepreneur and the entrepreneurial opportunity. Therefore, entrepreneurship is considered at the individual–opportunity nexus: scholars study the processes of discovery, evaluation and exploitation of entrepreneurial opportunities, their sources as well as the interaction between entrepreneurs and entrepreneurial opportunities (Shane & Venkataraman, 2000, p. 218; Davidsson, 2015, p. 674).

However, both Gartner (1988) and Venkataraman (1997) are criticized for narrowing down the scope of entrepreneurial research to the organisational context (McKenzie et al., 2007, p. 30). As suggested by Ucbasaran et al. (2001, p. 16), scholars should explore the context of the entrepreneurial phenomenon beyond the traditional creation of independent firms. Low (2001) suggests to be entrepreneurial in research strategies in order to increase the importance of entrepreneurship as a research field. Therefore, one of the claims is to shift from the individual level to the functional level and to view entrepreneurship not only in the business context by adopting the following definition: “Entrepreneurship involves individuals and groups of individuals seeking and exploiting economic opportunity” (McKenzie et al., 2007, p. 29).

Overall, the new venture creation process lies in the core of entrepreneurship and is central to research efforts of multiple scholars. For this reason, the new venture creation process will be discussed in the next section.

### 3.1.2 New Venture Creation Process

Multiple studies made attempts to depict the new venture creation process (Davidsson, 2015, p. 674; Shook et al., 2003, p. 380; Moroz & Hindle, 2012, p. 792). However, as identified by the Moroz & Hindle (2012, p. 792) only four of them were “converging on conceptualizing the entrepreneurial process”: Gartner (1985), Bruyat and Julien (2000), Sarasvathy (2001, 2008) and Shane (2003).

One of the first sound attempts was undertaken by Gartner (1985) who produced a static model of a new venture creation process defined across four dimensions: individual characteristics, organisational characteristics, environmental characteristics and the new venture process itself. As noticed by Moroz & Hindle (2012, p. 800), this model is appealing due to its concise explanation of the new venture creation process which is not limited to a specific context. However, it is criticized for being only profit-oriented
and for neglecting the innovative value of entrepreneurship (Moroz & Hindle, 2012, p. 801).

The second model of Bruyat & Julien (2000, p. 170f) introduces the dialogic element to the entrepreneurial process: the entrepreneur is participating in the entrepreneurial process aiming at creating value which is not limited to profit. This model enhances the one from Gartner by including the notion of “teams” instead of single entrepreneur, elaborating on the concept of “value” in entrepreneurship and introducing the time dimension (Bruyat & Julien, 2000, p. 170f). However, as noticed by Moroz & Hindle (2012, p. 802) the model lacks both, an explanation of the process of how entrepreneurs interact with entrepreneurial opportunities and a discussion of the process of capturing value.

Shane & Venkataraman (2000) present the model of the new venture creation as a process of recognition, evaluation, and exploitation of entrepreneurial opportunities (Certo & Miller, 2008, p. 267) where opportunity is seen as “the chance to meet a market need [...] through a creative combination of resources to deliver superior value” (Ardichvili et al., 2003, p. 108). Sharing his view, Sarasvathy (2001, p. 258) defined the entrepreneurial process of new venture creation as effectuation where entrepreneurs are evaluating various contingent opportunities and exploit them to fulfil their aspirations. Sarasvathy’s model (2001, 2008) is also considered to have “potential for offering insight into what is both generic and distinct to the entrepreneurial process” (Moroz & Hindle, 2012, p. 804).

Based on the Shane & Venkataraman (2000) model, Shane (2003, p. 10f) developed his framework to study the entrepreneurial process. The model is also stage-based where first entrepreneurial opportunities are discovered and then exploited by entrepreneurs who are affected both by their individual traits and environmental factors (Shane, 2003, p. 10f). However, despite the comprehensive character, the model is criticized for having unclear borders between the opportunity evaluation which is in scope of entrepreneurship and opportunity execution which is considered to be out of scope of the entrepreneurship research (Moroz & Hindle, 2012, p. 808).

Finally, a recent study of Becker & Knyphausen-Aufseß (2015, p. 162) developed a conceptual framework for the new venture creation process. The emergence of a new venture is also seen as a set of scenarios depicting interaction between the entrepreneur and the entrepreneurial opportunity, however, the outcome of this interaction might be different (exploitation, alteration or cancellation) (Becker & Knyphausen-Aufseß, 2015, p. 162). The scholars put attention on elements such as interaction between the entrepreneur and the entrepreneurial opportunity, “value of knowledge”, novelty of the venture, the time element, entrepreneurial action and finally the environment which influences the process.

Despite the differences of the discussed models, almost all - except for the model of Gartner (1985) - discuss the process of new venture creation on the entrepreneur-opportunity nexus. Hence, entrepreneurial opportunity is considered to be important in understanding entrepreneurship. The following section will elaborate on the relevant theories considering the entrepreneurial opportunity.
3.1.3 The Entrepreneurial Opportunity and its Role in New Venture Creation

Regarding the first stage of the entrepreneurial opportunity identification, there are two dominant views in this regard: opportunity discovery versus opportunity creation (Short et al., 2010, p. 54; Zahra, 2008, p. 243; Edelman & Yli-Renko, 2010, p. 833).

As Shane & Venkataraman (2000, p. 221f) suggest, opportunities are discovered. Opportunities are seen as objective phenomena independent from entrepreneurs and arising as a result of changes in policy, regulations, technology, consumer preferences and other market factors (Shane, 2003, p. 22f). Entrepreneurs, having certain characteristics are able to detect those changes and identify opportunities. Baron (2006, p. 104) presents a cognitive process model which explains the role of the opportunity recognition factors: “engaging in an active search for opportunities; alertness to them; and prior knowledge of an industry or market”. The alertness, defined first by Kirzner (1973), is a capacity to detect and “notice” entrepreneurial opportunity which drives the opportunity discovery process (Kirzner, 1999, p. 7; Gaglio & Katz, 2001, p. 95). The pattern recognition which integrates the mentioned factors allows entrepreneurs to discover the opportunities (Baron, 2006, p. 111). This view is summarized as “discovery theory”: a realist philosophy of understanding entrepreneurial opportunities, “risky” decision-making and specific cognitive properties of entrepreneurs (Alvarez & Barney, 2007, p. 13).

However, spotting the limitations of the discovery theory which are the lack of comprehensive understanding of the process and no agreement on the main concepts used to define the process, Ardichvili et al. (2003, p. 106f) claim that entrepreneurial opportunities are created by entrepreneurs. This process is multi-staged, driven by entrepreneurs and impacted by both individual and contextual factors (Ardichvili et al., 2003, p. 121). Alvarez & Barney (2007, p. 11) also contrast the metaphor of “mountain climber” to “mountain builder”. The opportunities are seen to be socially constructed and the entrepreneurs who make decisions to form and exploit opportunities in uncertain environment are not significantly different from non-entrepreneurs (minor differences may develop into significant ones) (Alvarez & Barney, 2007, p. 16f).

Noticing that scholars tend to contrast discovery and creation theories of entrepreneurial opportunities, some studies tried to integrate both views (Edelman & Yli-Renko, 2010; Vaghely & Julien, 2010). Edelman & Yli-Renko (2010, p. 848f) claim that entrepreneurs are driven by their perception of the opportunity, impacted by the environmental dynamism and by engaging themselves into different entrepreneurial acts they increase the probability of firm emergence. Moreover, entrepreneurs process and interpret information by using both creation and discovery processes. Therefore, opportunities are created and discovered at the same time (Vaghely & Julien, 2010, p. 73, 84). Finally, for the purpose of this study, when defining the process of interaction of entrepreneurs with the entrepreneurial opportunity, the authors will refer to the construction of the entrepreneurial opportunity.
3.1.4 Defining a Start-up

A start-up may be one of the best representations of the venture creation process (Lumpkin & Dess, 1996, p. 136). Surprisingly, there is a lack of clarity in the literature about the definition of the start-up. In order to have a concise definition which will enable consistent research sampling for this study, the authors decided to synthesize the definition from the literature based on the characteristics which were repetitively mentioned in the studies, namely: age, size, business model, organisational structure, decision-making and strategy.

Regarding these characteristics, the business model is playing a central role considering its importance in defining success of entrepreneurial ventures (Morris et al., 2005, p. 726; Johnson et al., 2008, p. 59). However, there is some ambiguity around the concept itself resulting in multiple views on its definition: economic, operational and strategic (Morris et al., 2005, p. 726f; Osterwalder et al., 2006, p. 3). For the purpose of this study, the business model will be defined as “the underlying logic of a firm by which it creates value” (Nair et al., 2013, p. 959). This logic drives entrepreneurial decision-making to ensure consistency and fit between strategy, architecture and resources (Morris et al., 2005, p. 733).

Although there is some ambiguity in defining temporal stages (Kazanjian, 1988, p. 276), the life-cycle literature gives some direction by discussing early stages of organisational growth. Stage in this regard is seen as “a unique configuration of variables related to organisation context and structure” (Hanks et al., 1993, p. 7). One of the first attempts to identify stages and characteristics of small businesses was brought forward by Lewis & Churchill (1983): the first two stages “existence” and “survival” aim at producing a viable business model. Lester et al. (2003) also see the organisational growth of small companies as a sequence of five stages with similar characteristics. Reviewing corporate life-cycle studies, Miller & Friesen (1984) refer to the “birth” stage where young and small firms are trying to become “viable entities”. Hanks et al. (1993, p. 12) describe the “start-up” stage similar to the “birth” stage of Miller & Friesen (1984). The summary of the start-up characteristics from the life-cycle literature is presented in Table 1.

Referring to the life-cycle literature when defining start-ups, requires to distinguish between small businesses and entrepreneurial ventures which are not the same as scholars claim (Carland et al., 1984; Stewart et al., 1999). Moreover, Miller (1983, p. 771), based on the synthesis of the previous studies, suggests that entrepreneurship is determined by product-market innovation, proactiveness and risk-taking. Lumpkin & Dess (1996, p. 137) add two other dimensions of “autonomy and competitive aggressiveness” which together with “innovativeness, risk taking, proactiveness” form the concept of the entrepreneurial orientation. The competitive aggressiveness dimension refers to the need of new ventures to compete with existing rivals (Lumpkin & Dess, 1996, p. 139). Further, “autonomy” refers to the independence of decision-making in detecting and exploiting opportunities exercised by the leaders and their teams (Lumpkin & Dess, 1996, p. 140). Despite the debates around the dimensions of the entrepreneurial orientation spotted by Rauch et al. (2009, p. 7f), entrepreneurial orientation is positively associated with performance of small firms (Wiklund, 1999, p. 38, 43; Wiklund & Shepherd, 2005, p. 85).
Luger & Koo (2005, p.17f) define a start-up by summarizing previous fragmented studies and offering the following characteristics:

- “new” refers to the “newly created firm” excluding those created by change of location, name and other attributes. The suggested operationalization of this parameter is its registration as a legal entity;
- “active” refers to hiring at least one paid employee during the given time-period (home-based entrepreneurs are neglected);
- “independent” refers to autonomy in decision-making (not a branch or subsidiary).

Sahut & Peris-Ortiz (2014) notice that start-ups often integrate innovative components. Mueller et al. (2012), observing entrepreneurs at the start-up stage, have defined their characteristics in comparison to growth-stage entrepreneurs. In the business society, start-ups are defined as a set of the three following characteristics: age (less than 10 years), “innovative technologies and/or business models” and ambitions for substantial “employee or sales growth” (Kollmann et al., 2015, p. 15). Finally, Blank (2010, January) states that a start-up “is an organisation formed to search for a repeatable and scalable business model”.

The characteristics, mentioned by the scholars working in the field of organisational growth as well as entrepreneurship, are summarized in the following Table 1.
Table 1: Synthesis of the start-up definition.

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>Less than 10 years old</td>
<td>Young firms</td>
<td>Less than 10 years old</td>
<td>“New”</td>
<td></td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>Small firms</td>
<td>Ambitions for substantial “employee or sales growth”</td>
<td>“Active”</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Business model</strong></td>
<td>In progress</td>
<td>In progress</td>
<td>Innovative</td>
<td>Under exploitation; Focus on product development</td>
<td>Innovative</td>
</tr>
<tr>
<td><strong>Organisational structure</strong></td>
<td>Flat</td>
<td>Simple, informal, undifferentiated</td>
<td>Unclear/overlapping roles; active use of network</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Decision-making</strong></td>
<td>Minimal formal planning; Full founders’ engagement; Difficult to analyse</td>
<td>Not sophisticated, informal, personal, decision-making, centralized around founder; risk-taking behaviour</td>
<td>“Independent”; High level of autonomy; developing task structure</td>
<td>Autonomy Risk taking</td>
<td></td>
</tr>
<tr>
<td><strong>Strategy</strong></td>
<td>“First mover”; seeking differentiation</td>
<td>Considerable innovation</td>
<td>Innovative technologies and/or business model; Innovation strategy</td>
<td>Taking the role of market innovators</td>
<td>Competitive aggressiveness; Pro-activeness</td>
</tr>
</tbody>
</table>


Consequently, for the purpose of this study, start-ups are seen as entrepreneurial new ventures having certain characteristics (see Table 2 below) which were created as a result of the entrepreneurial opportunity construction by entrepreneurs, following the founders’ perceptions (discovery process) and finally making decisions to exploit those opportunities.

**Table 2:** Characteristics of start-ups for the purpose of the study.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>Newly established entities less than 10 years old</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>Employs at least one employee and/or aims at substantial job creation and/or sales growth</td>
</tr>
<tr>
<td><strong>Business model</strong></td>
<td>Innovative business model under development (testing with potential customers)</td>
</tr>
<tr>
<td><strong>Organisational structure, communication</strong></td>
<td>Open, simple, informal organisational structure without clear roles; Active external network</td>
</tr>
<tr>
<td><strong>Decision-making, level of centralization</strong></td>
<td>Highly centralized decision-making; High level of autonomy; No advanced techniques for decision-making; Risk-taking behaviour</td>
</tr>
<tr>
<td><strong>Innovation strategy</strong></td>
<td>Application of innovative strategies to compete with existing rivals; Proactive behaviour</td>
</tr>
</tbody>
</table>

This section outlined the area of entrepreneurship by elaborating on its evolvement in academia, on the new venture creation process being the core of entrepreneurship, on the entrepreneurial opportunity and finally on defining “start-up”. The next chapter deals with highlighting project management as the second research area under consideration. An overview will be provided upon the evolution of project management and the current understanding of the term “project”.

### 3.2. Evolution of the Project Management Research

Project management, the concept of a “project” and its existence can be found in various spheres of the human life long before the definitions of the project appeared: for instance, construction projects in the ancient Egypt, geographical discoveries and military operations (Packendorff, 1995, p. 319). Historically, the “project” concept was driven by the practitioners in architecture and construction in various fields seeking to rationalize their routine (Garel, 2013, p. 665f). Later, it was standardized by powerful institutions like the Project Management Institute (PMI) (Garel, 2013, p. 666f). However, as a research discipline it gained scholars’ attention only since the mid-1990s (Garel, 2013, p. 663). The transition from the practitioners’ dominance in the field towards academic studies is observed by several scholars in their reviews (Turner, 2010, p. 4; Kwak & Anbari, 2009, p. 443; Pollack & Adler, 2015, p. 247). Currently project management is a very dynamic management research discipline (Kwak & Anbari, 2009, p. 443; Pollack & Adler, 2015, p. 236).
Soderlund (2004, p. 185) claims that there are “two main theoretical traditions in the project management research”. The first one reflects upon project management as being close to optimization theory and thus belonging to the engineering curriculum (Soderlund, 2004, p. 183). This view was of high interest during the years 1983-1992, as noticed by Betts & Lansley (1995, p. 215), and was facilitated both by PMI and the International Project Management Association (IPMA) which sees project management as “a method for solving complex organisational problems” (Soderlund, 2004, p. 183). At that time the themes on project planning, organizing, information and on the human factor were the most frequently researched (Betts & Lansley, 1995, p. 211). The assumptions underlying this approach are as follows: the reality in which projects are undertaken is objective, organisational decision-making is “instrumental/rational”, the behaviour of the project managers is rational and they are “value-neutral” (Cicmil et al., 2006, p. 681; Soderlund, 2004, p. 185; Packendorff, 1994, p. 21).

In this tradition “project” has an instrumental function to achieve organisational goals (Packendorff, 1995, p. 325f). Gaddis (1959, p. 89), defining the role of the project manager, considered a project being a way to achieve a goal within certain constraints: time, budget and quality specifications. Butler (1973, p. 85) shares this understanding, highlighting the role of shared organisational resources in achieving a specific complex project objective and the influence of constraints on this process. Pinto & Prescott (1988, p. 6), summarizing the previous studies, also define the project by its limitations (time and budget) and by a complex goal.

Sharing this view, PMI (2013, p. 3), in which membership is of high value among practitioners (Morris et al., 2006, p. 710), defines the project as a “temporary endeavour undertaken to create a unique product, service, or result”. According to the guide of PMBOK (PMI, 2008, p. 5) the following characteristics define a project:

- **time**: the project has a temporary nature which defines the process of achieving a desired outcome;
- **uniqueness**: despite repetitive processes each project is different from one another;
- **uncertainty**: complexity and uniqueness of the project creates uncertainty about the project outcome;
- **multi-levelness**: projects are undertaken at different organisational levels and engage different number of people and divisions.

Aniff & Fernie (2008, p. 2) argue that in this definition, the project has a “production function” aiming to cope with the iron triangle constraints: time, quality and cost.

However, this traditional approach is criticized in academia for neglecting the social context in which projects are undertaken and for treating all projects similarly, though being fundamentally different in their nature (Cicmil et al., 2006, p. 677; Shenhar & Dvir, 1996, p. 607). Moreover, scholars claim that the definition of the phenomenon is vague and most of what we call projects in real life does not support the definition of well-established organisations like PMI (Blomquist & Lundin, 2010). Hallgren et al. (2012) advocate that a better understanding the drifting environment - institutional factors impacting projects - is necessary.

On the other hand, the second academic tradition as suggested by Soderlund (2004, p. 185) reflects on project management from a rather social science perspective. The early
studies on temporary organisations of Miles (1964, cited in Soderlund, 2004, p. 185) and Goodman & Goodman (1976) follow this approach. Packendorff (1995, p. 326f) first formed a research proposal on temporary organisations based on the critique of the traditional project understanding. Cicmil et al. (2006, p. 676, 684) also see project management practice as socially constructed, thus emphasizing the importance of understanding projects as complex social settings. Moreover, there are ongoing calls in academia to research about temporary organisations highlighting the social aspect of their landscape (Cicmil et al., 2006, p. 685; Lundin & Steinhorsson, 2003, p. 249; Soderlund, 2004, p. 189f). The studies following this tradition aim to rethink traditional project management by introducing “softer, cultural and belief driven nature of project management” (Jugdev et al., 2001, p. 40). For example, the research agenda of the UK’s Engineering and Physical Sciences Research Council (EPSRC) network for rethinking project management includes the direction “theory for practice” which means to focus on social interaction, value creation in projects as well as on their broader conceptualization (Winter et al., 2006, p. 641f). The characteristics of the rethinking project management studies were summarized by Svejvig & Andersen (2015, p. 280) in their recent review (see Figure 1 below):

Figure 1: Important features of the classical and rethinking project management concepts. Source: Svejvig & Andersen, 2015, p. 280.

Therefore, we can observe an evolving character of project management and specifically a transition in the understanding of projects: from viewing them as “tools” to seeing them as complex social phenomena. Research on temporary organisations aims to improve this project understanding and thus is further explored in the next chapter.

3.2.1 Project as a Temporary Organisation


Since the seminal work of Miles (1964, cited in Soderlund, 2004, p. 185) entitled “On temporary systems”, the research on temporary organisations started to gain more and more attention (Jacobsson et al., 2015, p. 9; Bakker, 2010, p. 467; Lundin & Steinhorsson, 2003, p. 244). As suggested by Goodman & Goodman (1976, p. 494f), temporary systems were defined as a diverse group of people focused on accomplishing an “almost unique” task within a certain time limit. However, various terms were in use to address the phenomena (Packendorff, 1995, p. 327; Bakker, 2010, p. 467). Finally,
the term “temporary organisation” has emerged and was defined somewhat close to the traditional project definition: the project is an organisation aimed to reach a clearly stated objective to create a unique product in a certain time period requiring managerial practices for task organisation (Packendorff, 1995, p. 327). Nevertheless, this definition eliminated simple systems and those which are unintentionally created (Packendorff, 1995, p. 327). In general, “organizing” as a form of social interaction to produce a desired outcome was opposed to “organisation” (managerial approach to achieve objectives) which was prevalent in previous project management studies (Packendorff, 1995, p. 328). Later, Lundin & Söderholm (1995, p. 438ff) suggested more clear dimensions of the temporary organisation guided by action: time, task, team and transition, as visualized below in Figure 2.

![Figure 2: Interrelatedness of the basic concepts in the theory of temporary organisations. Source: Lundin & Söderholm, 1995, p. 451.](image)

Firstly, the **time** dimension was seen as a central one in defining temporary organisations (Packendorff, 1995, p. 43; Bakker, 2010, p. 466; Kenis et al., 2009, p. 59; Jacobsson et al., 2016, p. 578). Moreover, Kenis et al. (2009, p. 76-79) have identified several definitions of temporariness in the literature: temporariness meaning the short lifespan of the temporary organisation, limited duration (bounded by the deadline) including the subcategory of “**temporariness as awareness of impending termination**”. In general, a temporary organisation is created with a sense of time-limit which impacts its functioning: understanding of time constraint and thus the valuableness of the time resource impacts the social process in temporary organisations (Lundin & Söderholm, 1995, p. 440; Grabher, 2002, p. 208, Kenis et al., 2009, p. 79; Bakker et al., 2016, p. 6). As identified by Burke & Morley (2016, p. 1242) research in this area is more focused around “coordination mechanisms” which are used by temporary organisations to cope with time constraints.

Secondly, **tasks** create focus for the activities of the organisation and are compared to organisational goals (Lundin & Söderholm, 1995, p. 440). They are usually “**uncertain, complex and unique**” (Burke & Morley, 2016, p. 1242). Uncertainty relates to the dependence on the environment (Goodman & Goodman, 1976, p. 496). Complexity is defined by the interdependence of internal elements of the task and their diversity (Burke & Morley, 2016, p. 1243; Goodman & Goodman, 1976, p. 495). Uniqueness is defined by visionary, thus non-clearly defined goals, by a lack of experience of team members, by the requirement of strong leadership and by the renewal character of learning (Lundin & Söderholm, 1995, p. 441). However, some scholars claim that temporary organisations can also tackle repetitive and routine tasks (Brady and Davies, 2004, p. 1605; Lundin & Söderholm, 1995, p. 441).
Besides that, **team** defines human resources allocated considering the interaction within the team ("commitment building") and interaction with the external environment (Lundin & Söderholm, 1995, p. 442f). Saunders & Ahuja (2006, p. 667) have summarized the characteristics of temporary teams in terms of their types, outcomes, structure and processes: a temporary team is a cross-functional group of professionals aimed at effective problem-solving for a particular project with flexible organisation of roles. They mentioned that teams are taken as groups of individuals rather than organisational entities (Saunders & Ahuja, 2006). When discussing the temporary teams in academia, scholars explore implications of uncertainty and ways of interaction on team performance as well as ways of management of temporary teams (Bakker, 2010, p. 475f).

Finally, **transition** defines "the qualitative difference" of the temporary organisation state "before" and "after" accomplishing the task (Lundin & Söderholm, 1995, p. 438). It implies the action which forces the temporary organisation to overcome inertia to make a change (Lundin & Söderholm, 1995, p. 443). Lundin & Söderholm (1995, p. 438) define two meanings for transition: change of the task and change of internal perceptions and behaviour both of individuals and the group in total. However, when looking deeper at transition as a dimension defining temporary organisation, its role was re-evaluated: transition was seen as a vital part of each concept, defining temporary organisations (time, task and team) (Jacobson et al., 2013, p. 580f). Moreover, the scholars argue that every transition within temporary organisations involves choice as it defines the direction of transition (Jacobson et al., 2013, p. 581). Therefore, the initial framework of Lundin & Söderholm (1995) was modified to prioritize transition to time, and add the external focus: **goals, expectations and control** to improve the interface between temporary and permanent organisations (Jacobson et al., 2013, p. 582f). Figure 3 depicts the inclusion of the other dimensions:

![Figure 3: Interrelations of basic concepts in the theory of temporary organisations. Source: Jacobson et al., 2013, p. 581.](image)

Those dimensions in the literature are closely linked to the context in which temporary organisations operate (Bakker, 2010, p. 479; Burke & Morley, 2016, p. 1246). This is due to the fact that temporary organisations are based on the “social infrastructure” of the environment (Grabher, 2002, p. 211). Therefore, coming from understanding a project as a “lonely” phenomenon in the early studies (Engwall, 2003), the scholars currently focus on “the linkages between the temporary organisational venture and its enduring environment” (Bakker, 2010, p. 479). Academic studies discuss the question of “embeddedness” into a wider organisational context (Burke & Morley, 2016, p. 1246). Moreover, Lundin & Steinthorsson (2003, p. 246) argue that studying projects as temporary organisations may help to better understand the organisational context itself.
The recent study of Jacobsson et al. (2015) has proposed a new dynamic framework which might be helpful in understanding what types of organisations can be called temporary considering the variety and fuzziness of the previous definitions. To encourage pluralism in the views, scholars based their framework on the notion of “family resemblance” which means overlapping and crossing of characteristics shared by a group of items, forming a network or family (Jacobsson et al., 2015, p. 12). Thus, the “family” includes not identical, but similar due to having shared characteristics units. This idea, as well as the earlier developed framework (Jacobson et al., 2013, p. 582f), helped to define three conditions to empirically identify a temporary organisation (Jacobsson et al., 2015, p. 15):

- need for external pressure, identified by goals, expectations or control;
- need for internal focus on one of the following dimensions: task, team or time;
- and finally, existence of choice in transition to reach the “end state”.

This framework is supposed to guide empirical research in the field of temporary organisations allowing for a wider research scope (Jacobsson et al., 2015, p. 12).

After having outlined the research area of entrepreneurship and its development in the context of start-ups as well as the research area of project management in terms of the former and current understanding of the “project” with a special focus on temporary organisations, the following chapter will elaborate upon bringing both areas into context by examining the existing theoretical linkages between the research disciplines.

### 3.3. Linking Project Management and Entrepreneurship

The connection between the areas of project management and entrepreneurship seems to be quite strong in practice while from a theoretical research perspective the link between these two areas has barely been addressed and is considered to be very fragmented and separated (Kuura et al., 2014, p. 214). Kuura et al. (2014, p. 223) suggest that about 25 examined publications exist up to now that deal with connecting the two fields. This can be in fact regarded as a small number when considering the vast amount of literature in each field and the possible benefits from the linkages (Kuura et al., 2014, p. 223). Yet, both areas have taken very separate paths with project related aspects barely being mentioned in entrepreneurship literature and in turn, entrepreneurial aspects being barely included in project management literature (Kuura et al., 2014, p. 215). In the next sections the existing linkages will be explored by firstly identifying former connections between the areas followed by the current stream in academia.
3.3.1 Foundational Linkages between Project Management and Entrepreneurship

Project management and entrepreneurship are research areas both emerging in the mid of the 20th century and both lacking a solid theoretical basis, though evolving within the last decades (Kuura et al., 2014, p. 216). Despite the fact, that both areas are younger in theory than in practice (Kuura et al., 2014, p. 223), there have been a few attempts of linking the areas.

The first linking attempts go back to the NPD process acknowledging that the process itself is a project (Clark and Wheelwright, 1993 cited in Kuura et al. 2014, p. 219). Yet, the connection to entrepreneurship happens rather implicitly by mentioning “opportunities” and “available resources” instead of referring to the term “entrepreneurship” (Kuura et al., 2014, p. 219).

Apart from the NPD process view, a predominant tie between project management and entrepreneurship emerged with the linking concept of “temporary organisation” (Kuura et al., 2014, p. 217). The researchers aim at creating a framework of the life cycle of a temporary organisation while one of the underlying concepts in their life cycle is the so called “action-based entrepreneurialism” (Lundin & Söderholm, 1995, p. 445). Lundin & Söderholm (1995, p. 445) highlight the need of an entrepreneurial role for initiating and leading the creation of the temporary organisation based on actions which have a crucial role when initiating temporary organisations. Yet, action-based entrepreneurialism keeps on influencing action even after the initial phase while its relevance decreases as the temporary organisation progresses (Lundin & Söderholm, 1995, p. 450). Further, the researchers also outline the importance of entrepreneurialism in the context of unique tasks in a temporary organisation context (Lundin & Söderholm, 1995, p. 455). Thus, entrepreneurialism is reflected in action. Overall, the scholars indicate the relevance of entrepreneurial behaviour to manage temporary organisations.

Lindgren & Packendorff (2003, p. 86) embrace a project-based view on entrepreneurship putting the focus on the organisation of entrepreneurial acts (action-orientation). The researchers point out that the acts are temporary which makes it possible to analyse the entrepreneurial acts in the form of a project as being temporary projects (Lindgren & Packendorff, 2003, p. 86). This temporary character suggests that people can undertake several entrepreneurial acts during a lifetime highlighting the aspect of seriality in their argumentation. Entrepreneurial individuals can consequently be defined by the number of performed entrepreneurial acts e.g. in form of starting several businesses over their life-paths (Lindgren & Packendorff, 2003, p. 87). Further, Lindgren & Packendorff (2003, p. 88) underline that the entrepreneurial act often is a collective process created by co-actors in a network rather than by single entrepreneurs. As such, for Lindgren & Packendorff (2003, p. 89), the linkage of project management and entrepreneurship is reflected in entrepreneurial acts being temporary collective experiences - “projects” - within different contexts. In that sense, entrepreneurship is a process which happens in social interaction from the idea generation to the creation of the entrepreneurial identity being based on a social constructionist view (Lindgren & Packendorff, 2002, p. 4). Projects represent temporary efforts to ‘identify new ideas, get things done and work in closely coupled teams’ (Lindgren & Packendorff, 2002, p. 7). Consequently, Lindgren & Packendorff (2002) put the focus on projects being
entrepreneurial acts that are innovative and bring something new to their environment. When an entrepreneurial act is over, for instance the innovation reached the market, the project is over with the results of the project being integrated into a permanent context (Lindgren & Packendorff, 2002, p. 7). This highlights the distinction between the permanent and the temporary organisation in the context of entrepreneurial acts in form of projects. The link that Lindgren & Packendorff (2002) make between both research areas is based on the innovation aspect gained through projects.

Following the focus on innovation as the binding element between projects and entrepreneurship, Midler & Silberzahn (2008) provide insights by exploring the start-up development in a high-tech context through multi-project learning. According to Midler & Silberzahn (2008, p. 479) projects have their role in the start-up process as a start-up is composed by a succession of exploration projects that allow to constantly rethink and refine ideas based on previous experiences. As such, Midler & Silberzahn (2008, p. 479) do not necessarily see the start-up itself being a project but rather see the challenges within the start-up as projects following new ideas and business model changes: the firm only survives and keeps on growing if a number of new projects is implemented that redefines the first concept and that takes into account the experience of past trials. The authors discuss two different approaches: to handle projects in parallel or in sequence. The researchers explore inductively to what extent the chosen multi-project strategy promotes project to project learning which in turn might lead to exploration and exploitation of opportunities (Midler & Silberzahn, 2008, p. 485). In this regard, Midler & Silberzahn (2008) point out the relevance of learning efficiency in the start-up process.

Related to the opportunity exploitation stage, Burgers et al. (2008, p. 55) explore the success of NBD projects in the context of the newness and market knowledge in the organisation while putting a focus on the organisational capabilities of the investigated firms. The researchers highlight that projects are mechanisms to foster business development (Burgers et al., 2008, p. 59) which goes along with the understanding of Midler & Silberzahn (2008). Further, Ferriani et al. (2009, p. 1546) highlight that for selecting new projects the usual process of entrepreneurial action - opportunity identification - is applied.

Apart from the project-innovation-entrepreneurship stream, there is another notable stream that refers to the relevance of social ties, social collectivity and networking. The aspect of collectivity and the entrepreneurial acts being collective acts achieved through social interaction has already been mentioned by Lindgren & Packendorff (2002; 2003) as well as by Lundin & Söderholm (1995) who stress the aspect of the team being one of the four underlying concepts of the temporary organisation. Ferriani et al. (2009, p. 1545) take the same stance arguing that the project-entrepreneurs performance is related to “their degree of centrality within the social network and their familiarity with the selected project team as captured by the distribution of ties among team members”.

Most of the studies in this field cite scholars that are often cited in both research areas, project management and entrepreneurship, thus showing the connection between the research areas (Kuura et al., 2014, p. 221). Apart from the dominant project-innovation-entrepreneurship mainstream and other streams such as the relevance of social ties, there are some recent emergent developments linking project management and entrepreneurship which are discussed in the following section.
3.3.2 Recent Developments in Academia connecting both Areas

A recent stream in academia connecting the areas which is related to the previously discussed project-innovation-entrepreneurship mainstream, is the so called “entrepreneurial project” (Kuura et al., 2014, p. 222).

Macheridis (2009, p. 8) provides insights into the entrepreneurial project by coming up with a conceptual framework to build agility into the management of an entrepreneurial project. Further the researcher provides valuable characteristics of the entrepreneurial project: in the entrepreneurial project the autonomy of the entrepreneur is not limited by a contract in comparison to the usual view of projects being started after signing a contract (Macheridis, 2009, p. 3). Also, the role of the project manager differs in an entrepreneurial project since the entrepreneur usually is beyond the scope of the project while at the same time being the project manager. Regarding the aspect of innovativeness, an entrepreneurial project focuses mainly on the output in terms of value creation of the project (Macheridis, 2009, p. 4). Moreover, the entrepreneurial project usually does not have a base organisation behind that affects the degree of competitive aggressiveness (Macheridis 2009, p. 4). Macheridis (2009, p. 8) aims at building important characteristics of agility into the entrepreneurial project by stressing that there is a need to have both, control during the entrepreneurial process and flexibility in combination with learning to work forward with the project through agility. Consequently, agility is a mean to build flexibility into the management of the entrepreneurial project (Macheridis, 2009, p. 13).

Yet, the existing research around the topic of the emergent stream of entrepreneurial project is very limited and scarce as outlined above. Asquin et al. (2011, p. 5) though stress the fact that the entrepreneurial project could be a framework permitting the “weaving of links between the different entrepreneurship paradigms” that will promote a unifying paradigm. The researchers focus on the emergence of the term “project” in the French entrepreneurship literature and highlight that the entrepreneurial project should be given a central role in academia (Asquin et al., 2011, p. 10).

One of the latest studies on connecting the areas is provided by Lindgren & Packendorff (2011) and focuses on the recent development of “process” in the research area. Lindgren & Packendorff (2011, p. 46) stress their constructionist perspective on entrepreneurship by highlighting their view of entrepreneurial processes being seen as “temporally, spatially and socially distinct interactions - metaphorically, as projects”. The researchers take their earlier research on the project-based view on entrepreneurship (Lindgren & Packendorff, 2003) as a basis for their study. Lindgren & Packendorff (2011, p. 52) highlight the concept of a project metaphor which means to see entrepreneurial processes as a discontinuous, discernible and disaggregated series of events and co-constructed by involved actors and limited in time, scope and social involvement in terms of temporary organising processes. The metaphor permits to view entrepreneurial processes in terms of temporary organising processes (Lindgren & Packendorff, 2011, p. 52). Lindgren & Packendorff (2011, p. 52) point out that they do not aim at making the entrepreneurial processes subject to project management tools and models but solely aim at studying entrepreneurship as temporary organising processes in context of the project metaphor.
While Lindgren & Packendorff (2003; 2011) tried to uncover the linkages between both areas on a very high, metaphorical level avoiding to put entrepreneurship subject to project management tools and models, Ajam (2011, cited from Kuura et al., 2014, p. 222) argues more specifically for the “missing link” between the two areas meaning that entrepreneurs need project management in terms of proper planning. Ajam (2011, cited from Kuura et al., 2014, p. 222) argues that when entrepreneurs start to implement the business plan they become project managers who need to take care off two aspects: the project (from idea to initial operations) and the post-project phase to sustain the business. In addition to that, Brinckmann et al. (2010, 35f) discuss the impact of planning on business performance in small firms emphasizing that for new small firms - start-ups - planning has a positive impact on the business performance, though start-ups often lack crucial information for thorough business planning.

Reflecting on the existing linkages - the historical ones as well as the more recent developments - it can be derived that some of the concepts are used throughout several approaches such as the aspect of innovation and that the streams are often crossed (Kuura et al., 2014, p. 222). Overall, scholars discuss both, entrepreneurial elements within project management (e.g. the entrepreneurial project or the NPD stream) and project elements within the entrepreneurial context. Yet, the research around projects within the entrepreneurial context seems to be more elaborated considering some of the various aspects highlighted by the scholars such as the entrepreneurial acts seen as projects (Lindgren & Packendorff, 2003), the succession of projects within start-ups (Midler & Silberzahn, 2008) and the collectivity of entrepreneurial efforts (Lindgren & Packendorff, 2002; Lundin & Söderholm, 1995). As outlined in this chapter, the temporary organisation and its processes is the major underlying and guiding concept for the linkage between project management and entrepreneurship. Consequently, the project being a temporary organisation will be further explored in the entrepreneurial context bridging the gap between the two research areas.

3.3.3 Temporary Organisations in the Entrepreneurial Context

Considering the outlined links between project management and entrepreneurship in academia, two possible scenarios of placing temporary forms of organizing into the entrepreneurial context, specifically start-up context, have emerged and will be discussed further. The first one sees projects as temporary organisations undertaken within the start-up to pursue development goals while the second view considers the new venture, more specifically the start-up, being one entire project in itself in terms of a temporary organisation.

Regarding the first scenario, one of the directions, as suggested by Midler & Silberzahn (2008), is to see projects as a mean to manage start-up growth. In this way, projects have an instrumental function to support the development of a start-up by helping to achieve its organisational goal. Indeed, the start-up team is setting goals and holds certain expectations about the way their venture will develop (make transition), those goals are divided into projects with specific objectives (task), they have a time limit (time) and certain people are assigned to perform the task (team) which represent the dimensions of the temporary organisation (Lundin & Söderholm, 1995, p. 438ff). Therefore, start-ups use projects as temporary organisations to reach the stage of opportunity exploitation. The dimensions of temporary organisations, according to Jacobson et al. (2013, p. 581) in this scenario are discussed in Table 3.
In this way, projects being temporary organisations are seen somewhat similar to those in the corporate context as there is a clear link between the external and the internal focus, however in the start-up context success of such temporary acts is seen critical to the survival of a new venture (Midler & Silberzahn, 2008, p. 479).

The second scenario is to apply the concept of the temporary organisation to the start-up as a whole. The previous studies guide the researchers towards this direction. The dimensions of the temporary organisation model developed by Jacobson et al. (2013, p. 581), can be seen in the studies to be discussing the entrepreneurial process. Firstly, the transition to the stage of entrepreneurial opportunity exploitation, as suggested by Shane and Venkataraman (2000), is seen as an organisational goal for the start-up. Secondly, the new venture creation process itself is seen as complex and context specific which is central to Gartner’s model of new venture creation (Gartner, 1985). Thus, it can be concluded that start-ups are closely linked to the external environment which forms a basis for development of the entrepreneurial opportunity and affects the entrepreneurial process. Besides that, McKenzie et al. (2007, p. 29) discuss the “groups of individuals” which is somehow similar to the “team” dimension in the temporary organisation. Moreover, the temporary nature of the start-up comes from the life-cycle literature which sees the start-up as an initial stage of entrepreneurial growth (Lewis & Churchill, 1983; Lester et al., 2003, p. 342; Miller & Friesen, 1984; Hanks et al., 1993, p. 12). Additionally, time is recognized as an important dimension in the entrepreneurial research considering the “time windows” for entrepreneurial opportunities but also the time constraints of entrepreneurial actions (Busenitz et al., 2003, p. 302f). Stayton & Mangematin (2016, p. 375) claim that relationships between time, financial and human resources in the new venture are dynamic and require a strategic approach. As for the entrepreneurial tasks, the study of Mueller et al. (2012) which aims at observing the activities performed by the entrepreneurs at the start-up and growth stages, shows that start-ups are engaged in a greater variety of activities such as “Human resources and employee relations, Marketing, sales, and PR, Product development, Administration, Controlling and finance, Environmental monitoring” (Mueller et al., 2012, p. 1006) which constitute a complex, uncertain and unique task of a start-up as a temporary organisation (Burke & Morley, 2016, p. 1242).

Moreover, this scenario is supported both by scholars and by the business society: Macheridis (2009, p. 1) suggests to “structure entrepreneurship in terms of project management” as it allows knowledge transfer from the project management to the entrepreneurship area. The scholar claims that agile project management - both its values and its principles - is able to guide the entrepreneur in the management of its venture (Macheridis, 2009, p. 9). Besides that, the researchers of the Start-up Genome Project which study entrepreneurial success factors, refer to start-ups as temporary organisations: “Startups are temporary organisations designed to scale into large companies” (Marmer et al., 2011, p. 10). This definition is based on the works of famous practitioners: for instance, Blanc (January, 2010) and Reis (2011, p. 17f) developed the Lean start-up methodology to manage the start-up development. This definition also implies the transition from the “idea” to “company” state which is also an attribute of temporary organisations. The summary of the dimensions of the temporary organisation considering the start-up as a project is discussed in the following Table 3.
Table 3: Dimensions of the temporary organisation in the entrepreneurial context.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Temporary organisations within start-up (Midler &amp; Silberzahn, 2008)</th>
<th>Start-up as a temporary organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External focus</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expectations</td>
<td>Expectations of the founders to get project benefits and utilize it for further growth</td>
<td>Expectation of the stakeholders to get the products/services offered by the start-up</td>
</tr>
<tr>
<td>Goal</td>
<td>Entrepreneurial development, learning efficiency</td>
<td>Start-up growth, transition into “company” state (Shane and Venkataraman, 2000; Marmer et al., 2011, p. 10)</td>
</tr>
<tr>
<td>Control</td>
<td>Control from the founders on how projects contribute to the overall goal of entrepreneurial growth</td>
<td>Control of the stakeholders</td>
</tr>
<tr>
<td><strong>Internal focus</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Every project has a pre-determined time frame</td>
<td>“Time window” for development of the opportunity; Time-bound periods for entrepreneurial acts (Busenitz et al., 2003, p. 302f)</td>
</tr>
<tr>
<td>Task</td>
<td>Unique task impacted by uncertainty of the environment and emergent organisational strategy</td>
<td>Unique, uncertain and complex task (Mueller et al., 2012)</td>
</tr>
<tr>
<td>Team</td>
<td>Founders and/or the employees of the new venture</td>
<td>Group of individuals aimed at creation and further exploitation of the entrepreneurial opportunity (McKenzie et al., 2007, p. 29).</td>
</tr>
</tbody>
</table>
3.4. Reflection on the Theoretical Background

Overall, the presented theoretical background provides an overview of each of the research areas - project management and entrepreneurship - and finally discusses the attempts to link them. This literature review took an iterative and evolving process as initially it was not clear-cut which concepts would be worth mentioning in the literature review considering the fact that it was uncertain what can be revealed by the study.

In the end of the literature review, as aligned with the grounded theory methodology, a theoretical framework is not presented. This is due to the nascent character of the research area which makes it impossible to create a thorough framework based on the few studies around the topic. Consequently, the objective of this thesis is to contribute to the nascent area by developing new theory and by providing a theoretical model in the end of the thesis which, based on the analysis of the gathered data, points out where the predominant linkages between project management and entrepreneurship are.

The role of literature in grounded theory is debated by researchers with some of them taking the position that conducting a literature review before collecting data will create bias, while others argue that a general theoretical understanding is necessary (Ng & Hanse, 2008, p. 159; Bryman & Bell, 2015, p. 25; Suddaby, 2006, p. 635). Yet, for the authors conducting a literature review proved to be helpful in order to get an understanding of both research areas by mapping the key concepts in the project management and entrepreneurship literature. In the following chapter, the authors elaborate upon the choices that were taken for the study’s research strategy and research design.
4. Research Methodology

In this chapter the research methodology of the thesis is developed by outlining and justifying in a detailed manner the choice of the research strategy and the subsequent research design. Since the chosen research design, grounded theory, is a more particular research design, its main characteristics are described in further detail. In a next step, the data collection is elaborated upon describing the data collection method and the process, the sample selection approach for the study as well as the study’s sample. In addition to this, the way the data was analysed is described followed by the specification of the quality criteria and the ethical considerations which underpin this study.

4.1. Research Strategy

Two major research strategies are usually outlined being distinctive clusters: the quantitative and the qualitative research strategy (Bryman & Bell, 2015, p. 37). The choice of one of these research strategies is closely connected to underlying epistemological and ontological assumptions of a study (Creswell et al., 2007, p. 238; Bryman & Bell, 2015, p. 37).

The quantitative research strategy focuses on the quantification in the collection and analysis of data and rather takes a deductive research approach while often putting a focus on testing hypotheses (Bryman & Bell, 2015, p. 161). From the epistemological perspective, the quantitative research strategy reflects the view on the social world from an external, objective reality (Bryman & Bell, 2015, p. 38). Further, this research strategy embraces the norms and rules of the natural scientific model. Qualitative research on the other hand, focuses on words in the data collection and analysis process and embraces an inductive approach towards the connection of theory and research putting the focus on the generation of new theory (Bryman & Bell, 2015, p. 38). Further, this type of research strategy aims at exploring the ways in which individuals interpret their social world with a social reality that is constantly changing (Creswell et al., 2007, p. 238; Saldaña et al., 2011, p. 4). Yet, Bryman & Bell (2015, p. 38) outline that the boundaries of both research strategies are not clear-cut since each strategy can contain characteristics of the other.

Prior to defining the appropriate research strategy for this thesis, it is crucial to reflect upon the epistemological and ontological assumptions underpinning this thesis and upon the fact that an inductive research approach was chosen. As outlined, a constructivist and interpretivist stance is taken for this study, aiming at capturing the complex nature of entrepreneurship. The overall objective is to provide an understanding of how a project-based view unfolds in the entrepreneurial context and what impact it has on start-ups. This reflection provides the implication that the appropriate method for the purpose of this study is a qualitative research strategy. Qualitative research strategies focus on creating an understanding of experiences, perspectives and thoughts of the unit of analysis (Creswell et al., 2007, p. 238f; Saldaña et al., 2011, p. 4). Given the nascent theoretical foundation of the linkage between project management and entrepreneurship, a quantitative approach would not make sense since firstly the area of research has to be deeply explored and understood which is only possible by taking an inductive, qualitative approach. Furthermore, in this thesis non-numerical data will be gathered that offers in depth insights, gives the possibility to take contextual information into
account and enables interpretation and the exploration of the concepts. This focus on the contextuality is reflected in the constructivist stance of the authors’ philosophical assumptions.

Since Saunders et al. (2009, p. 139) and Ghauri & Groenhaug (2010, p. 55) distinguish between descriptive, explorative and explanatory studies, it is worth mentioning that this thesis follows a qualitative explorative pattern. An explorative study aims at finding out what is happening and at assessing a phenomenon in a new light which is aligned with the objective to explore how the process of a project-based view unfolds. In an exploratory study, the direction of the study may change due to new data that is coming in within the research process (Saunders et al., 2009, p. 140). This flexibility is helpful in fundamentally exploring a topic and also the exploratory approach is appropriate given the little knowledge of the topic in academia. Overall the qualitative explorative character of this thesis is also reflected in the nature of the research questions (“how” question).

4.2. Research Design

A research design provides a framework for data collection and analysis and reveals the priorities that are given to a range of dimensions within the research process which can be e.g. to understand a specific behaviour in a particular situation (Bryman & Bell, 2015, p. 49). Sanders et al. (2009, p. 141) distinguish seven research design strategies: experiment, survey, case study, action research, grounded theory, ethnography and archival research. For the purpose of this study, grounded theory was chosen as a research design strategy which is a more particular qualitative research design gaining relevance in various research fields (Creswell, 2007, p. 249). The particularities of this research design strategy will be introduced while in the end highlighting the fit of this research design to the study.

The originators of the grounded theory methodology are the sociologists Anselm Strauss and Barney Glaser creating grounded theory in the 1960s (Saldaña et al., 2011, p. 6). This methodology can be described as “theory building” (Saunders et al., 2009, p. 149). The objective of grounded theory is to come up with a “well integrated set of concepts that provide a thorough theoretical explanation of social phenomena under study” (Corbin & Strauss, 1990, p. 5). It is particularly useful for exploratory studies since grounded theorists aim at discovering behavioural patterns which are “contextual to the research situation” (Ng & Hase, 2008, p. 158). Suddaby (2006, p. 635) highlights that grounded theory embraces a strong attempt of putting subjective experiences into theoretical statements (Suddaby, 2006, p. 636). Given the nature of the grounded theory of exploring a new phenomenon, the study is usually data driven and emergent (Ng & Hase, 2008, p. 158; Saldaña et al., 2011, p. 7). This means that there is a lack of a theoretical framework which may serve as a basis for the research process. Yet, there is no consensus between researchers what the exact role of literature is within the approach (Ng & Hase, 2008, p.159; Bryman & Bell, 2015, p. 25; Suddaby, 2006, p. 635). Some researchers are prone to restrict literature to decrease the probability that the data will be manipulated in order to strengthen existing theory and findings while others argue for the necessity of making theoretical explorations to identify aspects of further study (Ng & Hase, 2008, p. 159). Suddaby (2006, p. 635) highlights that grounded theory is no excuse to ignore the literature while he urges for a balance between observations and existing theory. Ng & Hase (2008, p. 159) also highlight that it is
unreasonable to enter the field entirely free from past experiences emphasizing that the research problem should be supported by some general literature.

One of the major principles in grounded theory refers to phenomena being in constant change in response to changing conditions (Corbin & Strauss, 1990, p. 5). This fits well to the objectivist stance taken in this study. Overall, in this interactive approach, the researcher’s task is to assess how the unit of analysis reacts to changing conditions and to explore the consequences of their actions (Corbin & Strauss, 1990, p. 5). This implies that the problems are usually difficult to identify considering the multi-complex issues in the research area (Ng & Hase, 2008, p. 158). A particularity of the grounded theory approach in comparison to other qualitative approaches is that the analysis is started right after the first collection of data with the analysis directing the next interview and observations (Corbin & Strauss, 1990, p. 6). All presumably interesting and relevant issues gained from the first round of data collection have to be included into the next interview or observation. As such, grounded theory can be seen as a systematic and sequential process of data collection which enables to embrace all relevant concepts and issues of a nascent topic (Corbin & Strauss, 1990, p. 6). This ongoing process between data and researcher generates the fundament of successful grounded theory (Suddaby, 2006, p. 638). Further, grounded theory implies a procedural analysis reflected in breaking a phenomenon down into stages, phases or steps (Corbin & Strauss, 1990, p. 10).

Overall, grounded theory is an interpretive process with a creative component that is dependent on the sensitivity of a researcher to tacit elements of the data since grounded theory often is messy (Suddaby, 2006, p. 639). Suddaby (2006, p. 640) highlights that grounded theory is not easy and depends much on the talent of the researchers and their personality, experience and character. Grounded theorists need to be tolerant to ambiguity of results and need to become patient (Suddaby, 2006, p. 638; Ng & Hase, 2008, p. 162). Most of all, the challenge is to continuously stay open for issues that may give evidence to existing data (Ng & Hase, 2008, p. 159).

Grounded theory which is particularly helpful for research to explore, explain and predict behaviour with a strong focus on contextual factors (Corbin & Strauss, 1990, p. 5), which is primarily associated with an inductive research approach (Saunders et al., 2009, p. 149) and which is supporting the philosophical assumptions outlined in this study, is considered to be the most appropriate research design strategy. It underlines the objective of this thesis which is to provide insights into the project-based view in an entrepreneurial context and to finally contribute to the scarce theoretical body of knowledge. The authors are aware of the fact that grounded theory usually is a time-consuming and lengthy process which comprises several rounds of data collection, which means to go back and forth between the data analysis and data collection, and which only ends when the core category has been discovered. Consequently, the authors are conscious of the risk inherited in the grounded theory approach in terms of the lengthy process opposed to the time constraint for writing this thesis and moreover, the lack of the authors’ experience in conducting grounded theory research. Yet, the authors are convinced that this approach is the most appropriate methodology to answer the research questions and to ensure the best fit between the epistemological and ontological assumptions and between the research objectives and the research design strategy. The authors are confident to apply grounded theory in the best possible way.
4.3. Data Collection

Data collection is of particular nature in the context of the grounded theory approach as data collection and analysis are taking place in an iterative process. In the following section the data collection process and the data collection methods will be explained. In a next step, the interview design is elaborated which is followed by the way the sampling was undertaken for this thesis. Finally, the sample is described by providing an overview of the study participants and their characteristics.

4.3.1 Data Collection Method and Process

A research method is a “technique to collect data and which can involve specific instruments such as self-completion questionnaires, a structured interview schedule or a participant observation” (Bryman & Bell, 2015, p. 49). Within the grounded theory approach, as in other qualitative approaches, the data can be drawn from various sources: data collection methods comprise interviews and observations as well as other sources such as government documents, video tapes, newspapers, letters, and books - all means that may give insights into the questions under study (Corbin & Strauss, 1990, p. 5). According to Saldaña et al. (2011, p. 6f) and Suddaby (2006, p. 635) the analytical process of constantly comparing pieces of data in grounded theory is primarily but not exclusively driven by the collection of data from interviews. Consequently, following the dominant form of interviews in grounded theory, the selected data collection method for the purpose of this study is the qualitative interview. Data collection will be exclusively driven by qualitative interviews for two reasons. Generally, other sources of information such as elaborated written documentation are limited in the rather informal start-up environment and the limited time frame given for writing this Master thesis restricts the inclusion of further data sources.

Qualitative interviews are a powerful technique since they allow understanding attitudes and opinions of the unit of analysis, especially for exploratory studies (Saunders et al., 2009, p. 323f) which is aligned with the purpose of this study. Saunders et al. (2009, p. 320) differentiate between different types of interviews: structured, semi-structured and unstructured interviews. The semi-structured and unstructured interview forms are commonly used for qualitative research while the structured interview supports the collection of quantitative data (Bryman & Bell, 2015, p. 479). Given the exploratory qualitative character of this study, semi-structured and unstructured interviews - so called “non-standardised interviews” - are the most appropriate forms which support the “how” and “what” character of the underpinning research questions (Saunders et al., 2009, p. 321). The reason why taking multi-methods instead of only one interview type is reasonable for grounded theory, will be explained in the following paragraphs.

Data will be collected in two rounds. For the first interview round, unstructured interviews will be undertaken in order to first of all explore a general area in depth (Saunders et al., 2009, p. 321). This interview form is not guided by a predetermined set of questions, except of those discovering the start-up characteristics, though the researchers have a clear idea of the aspects to be covered in the interview. The interviewee is supposed to talk freely, meaning that the interview is non-directive (Bryman & Bell, 2015, p. 482). This approach goes along with the emergent character of grounded theory and its process that first of all suggests to discover the concepts of a developing theory (Corbin & Strauss, 1990, p. 6).
The first unstructured interviews guide the subsequent semi-structured interviews as the concepts discovered in the unstructured interviews will be discussed more deeply in the semi-structured ones: within grounded theory “all seemingly relevant issues must be incorporated into the next set of interviews and observation” (Corbin & Strauss, 1990, p. 6). **Semi-structured interviews** are appropriate in the second step as the researchers have a list of questions and themes connected to the concepts and issues discovered in the first interview round. Nonetheless, due to the context and the flow of the interview, the questions and the order of the questions may vary from interview to interview (Saunders et al., 2009, p. 320). This goes along with the grounded theory methodology which suggests that with the evolving data collection process the originally discovered concepts are split in different concepts, are formed to categories and finally define the core category that “accounts for most of the variation in the patterns of behaviour” (Ng & Hase, 2008, p. 157). Consequently, the core category is identified in a constant comparative and iterative process of data collection and data analysis. The data collection process in terms of the number of interviews to be held depends on when the core category is identified, meaning when no new categories or patterns emerge (Ng & Hase, 2008, p. 159). The data collection process is visualized in Figure 4 below.

**Figure 4:** The study’s data collection process.

In terms of the time horizon, the described data collection process follows a cross-sectional data collection approach, meaning that the data is collected at one specific point in time (Saunders et al., 2009, p. 155). The choice of the time horizon is independent from the research strategy and method chosen for the study (Saunders et al., 2009, p. 155). The reason for taking a cross-sectional data collection approach is given by the time constraint the authors encounter to write the thesis and the resulting impossibility to extend the data collection over a longer period of time. In total, the data collection process of the first and second round of interviews stretched from the 7th to the 30th of November. The authors are aware though that a longitudinal study could have provided further insights into questions such as, if and how a project-based view evolves in the entrepreneurial context over time and to explore if embracing a project-based view might impact the long-term success of start-ups. Nevertheless, the authors are convinced that the data collection methods and process within a cross-sectional approach allow not only to represent the point in time but also give implications of a longer period of time by asking questions of past views and future outlooks.
4.3.2 Interview Design

Saunders et al. (2009, p. 321f) distinguish different forms in which interviews can be conducted. As outlined, the interviews held for the purpose of this study are non-standardised interviews. Non-standardised interviews can be conducted either on a one-to-one or a one-to-many basis (Saunders et al., 2009, p. 321). Although the start-ups that are subject to be interviewed all work in a team of two to 10 people, the interviews will be held on a one-to-one basis. Moreover, the founder to be interviewed from each start-up will be the same throughout the interview process of first and second round of interview. This approach is taken to account for potential bias since the grounded theory methodology is based on a careful analysis of every single word that is said throughout the data collection process (Ng & Hase, 2008, p. 160) and taking different interviewees of the same start-up in the distinct interview rounds could lead to a misinterpretation of discovered concepts. This goes along with the taken epistemological stance which implies that each individual interprets his environment differently. Further, the one-to-one basis enables a more focused way to interview the start-ups and sets the ground for establishing a closer and trusted relationship with one of the founders which is crucial considering the amount of time the interviewees spend on the interviews and the willingness to take part in two rounds of interviews.

Saunders et al. (2009, p. 321) differentiate between face-to-face, telephone and internet/intranet-mediated interviews. For the purpose of this study, both - unstructured and semi-structured - interviews will be held in the form of telephone interviews, even though face-to-face interviews are stated to have benefits in data collection. These benefits include to establish a personal and trustworthy relationship with the interviewee more easily - especially when asking sensitive questions -, the visual cues the interviewee is able to control and a higher willingness to share information (Saunders et al., 2009, p. 349). Yet, telephone interviews will be undertaken due to the impossibility to meet the interviewees in person given the location of the start-ups in Germany, Singapore, Chile and Russia as well as given the time constraints for conducting the research. Some of the shortcomings of telephone interviews though are overcome by using Skype which is an online application providing voice and video calls. For instance, the inability to interpret non-verbal behaviour in telephone interviews (Saunders et al., 2009, p. 349) is overcome by making use of the video feature of Skype in order to allow for interpreting body language, gestures and facial expressions of the interviewees. Given the complexity in taking notes in a telephone interview, each interview is audio-recorded as recommended by Saunders et al. (2009, p. 349). Based on the audio recording, the interviews are then fully transcribed.

For both of the authors English is not their mother tongue, yet the approach is taken to conduct the interviews in English in order to allow for a common understanding of the authors and to reduce bias by only having one author conducting the interview and potentially misinterpreting or mistranslating terminology. This goes along with the grounded theory approach that stresses the careful interpretation of every single word said by the interviewee (Ng & Hase, 2008, p. 160). Hence, given the strong interpretative nature of the data analysis in grounded theory it is considered to be appropriate to avoid translations and provide a common ground for both researchers in English. Since the interviewees themselves were native English speakers or had a good level of English proficiency, the risk of misinterpretation or misunderstanding from the side of the interviewee was considered to be low.
Only in one case the interviewee asked for an interview in a language other than English which was conducted and translated by one of the authors but at the same time deeply discussed after by both authors to avoid bias in the interpretation as much as possible. Apart from that, the authors offered to clarify terms and questions in native language when this was needed or encouraged the interviewee to use metaphors, reflecting the authors’ sensitivity to language. The Skype video feature helped to detect these few cases of language confusion by interpreting the interviewees facial expressions. Both authors aimed at taking part in each interview in order to reduce bias and exceptions (e.g. due to interviews held in the native language of one of the authors) were carefully evaluated and only in one single case an interview was taken by one author only.

Prior to each interview, the interviewees were send an e-mail providing them with some basic information such as the length of the interview and the topic of the thesis. In the same email, a consent form was attached which was giving the interviewees information about the data collection method, analysis and presentation and assuring anonymity and confidentiality for the usage of results. As such, the relationship between the researchers and the interviewees was made clear at all times. Yet, a clear purpose of the interview was not provided in order to avoid bias in the answers due to a prior preparation of the interviewees. The authors themselves prepared the interviews by looking at, if available, information on websites to get an impression about the start-up’s business idea.

The interviews were conducted in two rounds. In the first round of unstructured interviews, the interviews followed a process of three blocks. Within the first block, the authors briefly introduced themselves, asked if the interviewees agree on the recording of the interview and introduced the topic of the master thesis - but again in a short manner to avoid bias. The second block of the interview comprised to pose questions about the start-up in order to get an understanding of the business model and in order to make sure that the start-up falls into the boundaries of the synthesized start-up definition and to ensure the sample’s consistency. Here, opposed to an unstructured interview manner, questions were asked but only to make sure that the start-ups fall into the start-up definition. The third block of the interview was dedicated to exploring the project-based view in entrepreneurship. The authors did not have a set of questions to ask but focused on providing as much flexibility as possible while letting the interviewee speak freely without interruptions and while trying to cover some aspects. The guiding aspect was to get an understanding of the perspective of the interviewee on the term “project” in their entrepreneurial context (see Appendix 1). Depending on the answers, some aspects mentioned by the interviewee were explored further by posing additional questions. Yet, the objective in the first round was to explore and uncover principal concepts that, after a thorough analysis, could be discussed more in detail in the second round of interviews. The interviews of the first round took between 35 minutes up to one hour.

Following the iterative process between data collection and analysis in grounded theory, the second round of semi-structured interviews comprised to pose questions about the concepts that were discovered to be relevant from the analysis of the first rounds of interviews. As such, the objective was to refine what had been found in the first round of interviews by going deeper into the discovered concepts. Since the authors discovered two predominant views within the first round of interviews which comprise mentioning projects as a way of structuring the start-up internally and seeing the start-up as a project in itself, the second interviews were accordingly structured by these two
blocks. Several questions were prepared prior to the interview for both of the blocks, though they were posed in a sequence which was best fitting the interview situation, reflecting the semi-structured nature of the second round of interviews (see Appendix 2). Moreover, it was based on the authors’ judgement which of the answers of the interviewees were further to be explored by follow-up questions. It is worth mentioning that the questions for the second round of interviews were also not sent to the interviewees prior to the interview in order to foster a more natural way of answering and to avoid preparation and resulting bias. In terms of duration, the second round of interviews took from 25 minutes up to 40 minutes. The way the participants for these interviews were found and selected is described in the following section.

4.3.3 Theoretical Sampling

Taking a sample for the purpose of data collection is a common approach in research given that it is not necessarily possible to address all research problems since collecting data from the entire population is impractical and a lot of studies have time and budget constraints (Saunders et al., 2009, p. 212f). At the same time, taking a sample does not imply to lose validity of results but might lead to a higher accuracy due to the focus on collecting more detailed data from few cases (Saunders et al., 2009, p. 212f). For the thesis under consideration, the population are start-ups that do not yet have a viable business model, are newly established entities less than 10 years old and that employ at least one employee and/or aim at substantial job creation and/or sales growth (see Table 2, p. 22). As the research questions indicate, this study is not limited to any industry or country specific context which results in a huge population meaning that taking a sample is appropriate.

Saunders et al. (2009, p. 211ff) distinguish between probability sampling and nonprobability sampling. Probability sampling refers to the estimation of the characteristics of the population from the sample statistically while non-probability sampling states that it is not possible to derive generalisations from a sample to the population based on statistical grounds (Saunders et al., 2009, p. 213). The research questions and objectives of this thesis that might determine which sampling technique is fitting best (Saunders et al., 2009, p. 233), imply that there is a need to make in-depth explorations on a small number of cases for a particular purpose. These cases will provide information-rich data to explore the research problem. Consequently, a non-probability sampling is most appropriate for addressing these research questions considering the explorative nature and the particular purpose which cannot be met by taking the sample statistically.

Within non-probability sampling there are different techniques to be chosen: quota, purposive, snowball, self-selection and convenience sampling (Saunders et al., 2009, p. 236). The purposive sampling is the chosen technique for this thesis as it allows the researcher to choose the sample which best answers the research question based on own judgement (Saunders et al., 2009, p. 237f). This technique is suitable for samples of only a few cases which are supposed to be particularly informative and it goes along with taking the grounded theory methodology (Saunders et al., 2009, p. 237ff). The own judgement of which cases to include for data collection comes from the emerging data within the grounded theory methodology. The authors of this thesis had an initial list of start-ups coming from their network which seemed to be suitable given the start-up characteristics that were identified in the literature review.
After conducting first interviews, the emergent data from the interviews determined who next to talk to which is called theoretical sampling (Ng & Hase, 2008, p. 159). Consequently, there was no predetermined sample from the beginning but it was rather formed and chosen when needed along the data collection process (Ng & Hase, 2008, p. 159). Following Corbin & Strauss (1990, p. 8), an idea of the phenomenon to be studied was formed by the authors and based on this knowledge, start-ups could be selected that represent the phenomena. This allowed a high level of flexibility in the research process (Ng & Hase, 2008, p. 159). By discovering concepts in the first interviews with start-ups, the identified concepts were more deeply explored by conducting a second round of semi-structured interviews. As such, the particularity of grounded theory sampling was followed which is not about drawing samples of specific groups of individuals but instead is based on “concepts, their properties, dimensions, and variations” (Corbin & Strauss, 1990, p. 8). This approach is also manifested in the way the start-ups for the second interview were selected since not the entire sample was subject to a second round of interviews: the start-ups which were representing in the most elaborated and most thoroughly manner the two major discovered phenomena in the first round of interviews, were interviewed a second time. This goes along with the purposive theoretical sampling logic.

Regarding the sample size, it was not clear-cut from the beginning how big the sample size needs to be for addressing the research problem of this thesis as in grounded theory methodology the sample size is completed if no new patterns or categories emerge from the data (Ng & Hase, 2008, p. 159; Creswell et al., 2007, p. 251). As such, theoretical sampling leads to representativeness and consistency while the representativeness of concepts is crucial (Corbin & Strauss, 1990, p. 9). The authors ceased interviewing when a position of theoretical saturation was reached meaning that the interviews were adding only marginal increases to the knowledge. This theoretical saturation was reached after interviewing seven start-ups. The appropriateness of this sample size was also proven since in the second round of interview, held with four out of the seven start-ups, no new findings were revealed but instead the findings from the first round of interviews were refined. The sample comprises start-ups based in Russia, Germany, Singapore and Chile. As a lot of the start-ups collaborate with co-founders from different nationalities and since the founders and co-founders are often geographically dispersed, the authors did not take the country setting as a way of narrowing down the sample into account but instead took an international start-up sample. Additionally, the authors do not aim at making comparisons between the countries considering the few interviews and the time constraint. Further, given the objective of the thesis to provide a better understanding of the role of “project” in entrepreneurship on a high level, focusing on a sample that reflects one specific industry was not considered being appropriate. It was instead considered important to provide a variety of contexts in terms of industries so that the patterns that emerge from the data are presumably of particular interest representing general key themes in the area. Hence, the sample covers various industries, though the start-ups have a strong (information) technological orientation in common which is consistent with the “innovativeness” being a substantial part of the dimensions that form the entrepreneurial orientation.
4.3.4 Participant Description

In this chapter an overview of the study’s participants is provided. As mentioned above, the consistency in the sample was ensured by checking in the first round of interviews if the start-ups reflect the characteristics of the synthesized start-up definition (see Table 2, p. 22). In the process, one start-up was not included in the sample due to the lack of conformity with the characteristics and as such the lack of representativeness of the sample. The synthesized characteristics comprise: age, size, business idea, stage, entrepreneurial opportunity, organisational structure, decision-making, level of centralization and innovation strategy. A detailed overview of these characteristics and their specific implications for each included start-up is given in the appendix (see Appendix 3-9). In total, seven start-ups based in Germany, Russia, Singapore and Chile were interviewed with a few of them operating internationally. Seven start-ups were interviewed for the purpose of data collection and analysis since after these interviews theoretical saturation was reached meaning that the major recurrent concepts were identified and further interviews would have added only marginally to the knowledge. As shown in the table, four of the seven start-ups were interviewed for a second time as those were providing the most thorough insights into the discovered concepts within the first round of interviews. Overall, 11 interviews were conducted. Table 4 below provides a concise overview of the start-ups being part of the study’s sample by highlighting their age and a brief business description. Since the start-ups are treated confidential in terms of not revealing their company name, each start-up is given a code that reflects the sequence of the first round of interviews.

Table 4: Concise overview of the interviewed start-ups.

<table>
<thead>
<tr>
<th>Code</th>
<th>Age</th>
<th>Start-up Description</th>
<th>Second interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>14 months</td>
<td>Development of a project and change management software</td>
<td>X</td>
</tr>
<tr>
<td>A2</td>
<td>1.5 years</td>
<td>Music platform tracking news about music bands and providing music recommendations</td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>10 months</td>
<td>Mobile based “network of networks” for time-poor professionals based on data analytics</td>
<td>X</td>
</tr>
<tr>
<td>A4</td>
<td>&lt; 10 months</td>
<td>Online platform for transferring money by bitcoins</td>
<td></td>
</tr>
<tr>
<td>A5</td>
<td>2 years</td>
<td>Transport platform for inter-urban bus companies uniting auto-stations, bus transport companies and final users</td>
<td>X</td>
</tr>
<tr>
<td>A6</td>
<td>4 years</td>
<td>Web based tool to organize users’ relevant content (e.g. books, articles, videos) within one platform</td>
<td></td>
</tr>
<tr>
<td>A7</td>
<td>2 years</td>
<td>Queue management software that allows users to take a waiting number online to reduce waiting time in queues</td>
<td>X</td>
</tr>
</tbody>
</table>
4.4. Data Analysis

Within the grounded theory approach, the data analysis is particular and follows a process of constant comparison to explore differences and similarities within the data (Ng & Hase, 2008, p. 159). This ongoing process of comparing incidents from the data collected in various rounds of interviews, aims at defining the basic properties of categories formed by the data, identifying the relationships between the categories and identifying patterns which in the end leads to finding categories that constitute the core category (Ng & Hase, 2008, p. 159). Having a clear process of how to analyse data is helpful given the mass of data emerging from unstructured and semi-structured interviews. This process is explained further in detail.

The process of analysis to reveal the core categories is facilitated by “coding”. Coding is the “process of breaking down data into distinct units of meaning for analysis” with the objective to identify as many categories and their properties as possible (Ng & Hase, 2008, p. 159). Coding in the grounded theory methodology is differentiated into open, axial and selective coding (Creswell et al., 2007, p. 241; Ng & Hase, 2008, p. 160). Along with theoretical sampling and memoing, coding supports systematic generation of higher levels of abstraction leading to an integrated final grounded theory (Ng & Hase, 2008, p. 160). Open coding is used in the very first stages of the data analysis and aims at disaggregating the data into conceptual units provided with a label (Saunders et al., 2009, p. 509). Every concept discovered by the authors in the analysis is firstly provisional though and is only emphasized and further explored if it repeatedly emerges in the interviews (Corbin & Strauss, 1990, p. 6). A large amount of first concepts identified by the authors was then subject to comparison among one and another leading to grouping related concepts into broader major and more abstract categories of information (Corbin & Strauss, 1990, p. 6; Saunders et al., 2009, p. 509; Creswell et al., 2007, p. 249f). As such, the authors came up with having eight so called “second order levels” that aggregated the related first order concepts. In a next step, the axial coding, the authors identified one or more of the open coding categories and aimed at building a model around the core phenomenon by collecting more data and/or revisiting existent data (Creswell et al., 2007, p. 249f). Consequently, by means of a second round of interviews, more data was collected and the new data was compared to existing data. The data was the basis to create a model by revealing the relationships between the categories which emerged from open coding and which were rearranged into a hierarchical form and into emergent subcategories (Saunders et al., 2009, p. 511). This model may be reflected in a diagram or figure that visualizes the “causal conditions (what factors caused the core phenomenon), strategies (actions taken in response to the core phenomenon), contextual and intervening conditions (broad and specific situational factors that influence the strategies) and consequences (outcomes from using these strategies)” (Creswell et al., 2007, p. 249f). The model that was created from the data collected in this thesis is discussed in the “Study Findings” chapter.

Ultimately, in selective coding, the central or core category is identified in order to relate the other categories and subcategories to it so that an explanatory grounded theory can be developed (Corbin & Strauss, 1990, p. 511). The core category reflects the main concerns of participants in a study and “accounts for most variation in a pattern or behaviour” (Ng & Hase, 2008, p. 159). Figure 5 visualizes the entire process of analysing in grounded theory.
Memoing as mentioned in Figure 5 is a helpful mechanism for coding in grounded theory and was applied for data analysis in this study. Memoing takes place in parallel with data collection, note taking and coding and reflects the written notes or records of analysis that support to capture the emergent theory and to identify categories (Ng & Hase, 2008, p. 161). Starting from the first round of interviews the memos were written after each interview highlighting the most important codes and concepts. After the first round of interviews the memos were compared, were revisited after the data collection of the second round of interviews and again compared to one another, became more abstract along the grounded theory research process and as such supported to conceptualize the data and to ultimately uncover the core categories (Ng & Hase, 2008, p. 161). Figure 6 shows how memoing is integrated in the grounded theory process of constant comparison between data sets.
4.5. Quality Criteria of the Study

Assuring the quality of research is an important issue nowadays (Mays & Pope, 2000, p. 50). The researchers should be guided by the quality criteria specific for the type of study (USBE, 2016, p. 20; Poortman & Schildkamp, 2012, p. 1728). In case of qualitative studies, the following criteria are suggested: credibility, transferability, dependability, confirmability and authenticity (USBE, 2016, p. 20). When discussing specifically grounded theory, the following criteria are relevant: validity, reliability and credibility (Corbin & Strauss, 1990, p. 16). The following discussion will reflect upon these mentioned criteria.

4.5.1 Credibility

According to Tracy (2010, p. 842), credibility is defined as “the trustworthiness, verisimilitude, and plausibility of the research findings”. Scholars find studies credible if readers feel safe enough to base their decisions on the conclusions of the study (Tracy, 2010, p. 843; Saunders et al., 2009, p. 156). Credibility consists of the following parameters: reliability and validity, including external validity (generalisability) (Saunders et al., 2009, p. 156-159). As suggested by Tracy (2010, p. 843f), credibility can be achieved by a rich description of meanings and details of the phenomena, data triangulation and crystallization, multivocality - “providing space for variety of opinions” and incorporating those opinions into the report - and member reflections. Triangulation and crystallization are seen as quite similar practices (Tracy, 2010, p. 843). However, triangulation is about using various data collection techniques and sources of data within one study (Saunders et al., 2009, p. 602) but also using a variety of theoretical frameworks (Denzin, 1978 cited in Tracy, 2010, p. 843). Crystallization, while engaging similar techniques, is used for the purpose of producing conclusions which allow for a more complex, multiple and in-depth understanding of the issue (Tracy, 2010, p. 844). Morse et al. (2002, p. 18) also offer verification strategies to reach the criteria of reliability and validity.

First of all, to reach “methodological coherence” (Morse et al., 2002, p. 18), the research method appropriate for the research question was chosen: as mentioned earlier, considering the nascent state of the theory linking entrepreneurship and project management, a grounded theory approach is considered to be appropriate for improving the understanding in the area. Secondly, the sampling was conducted adequately to the synthesized criteria of start-ups. To conform with multivocality recommendations, start-ups with different progress levels as well as geographical and industrial background were sampled. Moreover, the data collection and analysis was performed concurrently improving interaction between the theory and analysis as suggested by the grounded theory approach.

For the purpose of triangulation and crystallization, multiple theoretical studies and several frameworks were analysed and both authors participated in the interviews in order to improve the interpretive quality of the data and to reduce personal bias. Besides that, the data was analysed separately by the researchers and later the findings were compared to each other so that the authors could discuss and challenge each other. At this point it is worth mentioning that the authors are aware of the fact that interviews were the only method and source of data collection which does not comply with triangulation requirements. However, considering the limited time frame of this study as
well as the scarcity of secondary information about the start-ups (being newly created ventures with no formal procedures and a lack of written documents or documented procedures which could be subject to analysis), the authors find the used data collection method appropriate for the purpose of producing credible conclusions. Besides that, the researchers are aware of the fact that reality is multiple and socially-constructed. This can be well observed at the level of understanding the term “project” or “company” by various respondents. Therefore, the unstructured interview was applied to uncover and explore the meanings and minimize the impact of the personal bias on the study results by allowing the respondents to talk and express their ideas and perceptions freely without restricting them by asking particular questions.

While researching for the purpose of this study, the authors having constructivist philosophical considerations paid great attention to detailed transcripts with direct citations which reproduce the original meanings of the participants. The researchers used their tacit knowledge and understanding of the cultural background of the respondents to unpack the hidden meanings. Besides that, the researchers were empathetic in the data collection process being aware of the contextual differences of the start-ups. Furthermore, considering that English was not the native language to both of the researchers and neither to any of the interviewees, the authors tried to be sensitive to understanding the participants by offering either to explain using various metaphors or switch to the native language if that was possible. During the data analysis the data was scrutinized to address the defined research questions. Finally, the study findings will be provided to the participants to discuss their reflection upon the topic and to see additional opportunities.

4.5.2 Transferability

“Transferability” as a term was first introduced by Lincoln & Guba (1985, cited in Morse et al., 2002, p. 14; Shenton, 2004, p. 64) as an alternative to external validity. Tracy (2010, p. 845) sees transferability as valuableness of the study across different contexts, so that the readers could “transfer the research to their own action”. In contrast to quantitative studies, in qualitative research transferability cannot be reached by implementing statistical generalizations (Tracy, 2010, p. 845). For the purpose of improving transferability the researcher should provide the details of the research context, its limitations and the underlying assumptions (Trochim, 2006, October; Shenton, 2004, p. 70). While developing this Master thesis, the authors were transparent about the underlying philosophical and theoretical assumptions and the research context, specifying characteristics of the participants, their number, data collection method, number and length of the interviews, as well as the period of data collection, as suggested by Shenton (2004, p. 70). Moreover, the limitations of the study were discussed to allow a better understanding of the transferability of the results. This information is available in the corresponding chapters.

4.5.3 Dependability

Similarly to transferability, the criteria of dependability was introduced by Lincoln & Guba (1985, cited in Poortman & Schildkamp, 2012, p. 1730) instead of reliability due to the changing nature of the observed phenomena in qualitative research. As suggested by Tobin & Begley (2004, p. 392), dependability is reached through “the process of auditing”: when the reader can trace how the researcher conducted the study including
the choices which influenced the study design and its output. Following the recommendations of Shenton (2004, p. 71f) the authors reflected upon the research design and its implementation, data collection details and effectiveness of the chosen research method.

4.5.4 Confirmability

Confirmability can be compared to objectivity, however as the research is value-bound, confirmability refers to how well the research can be justified by its readers (Poortman & Shildkamp, 2012, p. 1730; Shenton, 2004, p. 72; Tobin & Begley, 2004, p. 392). Shenton (2004, p. 72) claims that triangulation is important to reduce authors’ biases. Moreover, it is suggested to undertake “audit trail” which can be either data-driven or theoretical in order to trace the researchers’ decisions throughout the study (Shenton, 2004, p. 72).

Throughout the study the researchers aimed at providing transparency considering their methodology: all the methodological choices guiding literature selection, research design and data analysis are reflected in the methodological chapters. Further, the data analysis is presented in a detailed way using tables aimed at synthesizing and describing the second order themes and the categories. As mentioned earlier, the triangulation practices were limited to using various theoretical frameworks and to the active participation of both authors in the data analysis process since the use of various data collection methods and sources of information was not possible given the time limit.

4.5.5 Authenticity

Tobin & Begley (2004, p. 392) claim that research is authentic when the researchers show “fairness” about their “concerns, issues and underlying values”. Tracy (2010, p. 841f) refers to authenticity through the term of “sincerity” which can be achieved by practicing self-reflexivity and transparency in presenting the study. Self-reflexivity refers to being honest with yourself about preparedness to undertake the research project, personal motivations and biases as well as strong and weak points of the research (Tracy, 2010, p. 842). The authors tried to be sincere about the difficulties they faced during the process, considering the fuzziness of the grounded theory approach and the lack of experience in undertaking research projects using grounded theory. Transparency refers to being traceable both in reflecting on personal biases but also by providing detailed comments at all stages of the study: motivations, engagement level, developing transcripts, faced challenges and acknowledgement of colleagues’ support (Tracy, 2010, p. 842). While discussing axiology, the authors clearly stated their biases and admitted that this research is value-bound. Moreover, both authors were highly engaged and fully committed to this research, being motivated by the relevance of the topic and methodological challenges which accompany the grounded theory approach. Finally, the authors appreciate the guidance and the critical comments of their Master thesis supervisor who has a valuable experience both in the area of entrepreneurship and in undertaking studies by grounded theory.
4.6. Ethical Considerations

As defined by Saunders et al. (2009, p. 183f), ethics define if the researcher’s behaviour conforms with the rights of the study subjects or those affected by it. Any researcher should be aware of the implications of its study and consider the justifications for certain choices throughout the research process (Weathington et al., 2012, p. 24; Bryman & Bell, 2011, p. 128). This means that research ethics underpins all the stages of the research process from clarifying the research topic to analysing data and producing the report (Saunders et al., 2009, p. 184, 188). As outlined in the thesis manual of the Umeå School of Business and Economics (USBE), the researchers should be guided by a set of ethical principles (USBE, 2014, p. 6). Bryman & Bell (2007, p. 128) name those principles as follows: informed consent, confidentiality and privacy avoidance of deception and avoidance of harm to participants of the study or non-maleficence (Saunders et al., 2009, p. 186).

First of all, the authors were guided by personal interest in the area of entrepreneurship and project management, thus have not experienced any coercion and used their “right to useful research” (Saunders et al., 2009, p. 188). No external pressure was experienced at the later stages of the research. Secondly, the authors informed participants of the study by e-mail about their participation in order to receive “informed consent”: information about data collection methods, analysis, data presentation and further availability were given prior to the interviews (Saunders et al., 2009, p. 190). The interviewees were provided assurances of anonymity and confidentiality by using a consent form, as suggested by Saunders et al. (2009, p. 192). However, considering confidentiality, the start-ups allowed the data to be attributed directly to them during the data analysis, if required. The authors discussed the idea of sending the interview transcripts to the participants, however, considering the methodological problems, ethical problems and problems of research credibility, identified by Mero-Jaffe (2011, p. 244), it was decided not to transfer the transcripts but instead to provide an access to the study findings. After all, the informed consent was received and convenience to the study’s participants was ensured.

During the data collection the participants of the study were reminded that they can still withdraw from participation, as recommended by DiCicco-Bloom & Crabtree (2006, p. 319). Moreover, the authors tried to remain objective by first understanding the actual view of the start-up through unstructured interviews and later understanding and fully transcribing the details of the position. Besides that, both authors participated in the interviews to reduce the probability of personal bias affecting the study. No references to previous interviews of other participants or personal information (e.g. e-mail, phone numbers) were provided to the interviewee.

Additionally, as noticed by scholars, conducting interviews requires special attention to ethical considerations regarding the personal contact with participants (Saunders et al., 2009, p. 194; Orb et al., 2000, p. 94; DiCicco-Bloom & Crabtree, 2006, p. 314). As suggested by Wolgemuth et al. (2015, p. 368), a special effort was made to build up a trustworthy relationship with participants during the research process. The interview was arranged in the time comfortable for the participants and the questions were not aimed at putting pressure on the participants or demeaning them.
When processing and storing the data, no personal data was processed or stored. Moreover, during the analysis and report production, the authors aimed at remaining objective as well as maintaining anonymity and confidentiality to the participants as recommended by Saunders et al. (2009, p. 199). All the participants were given the access to the study report to ensure that they will not experience any harm from the study.
5. Analysis

In this chapter the data gained from the two round of interviews will be discussed. Following the analysis process of grounded theory which starts with first order concepts that are aggregated into second order themes and finally into core categories, each second order theme will be outlined in the subsequent section. The reasons why the first order concepts are aggregated into these second level categories will be explained and the authors will elaborate on the empirical findings gained from the interviews while relating these to the concepts discussed in the literature background as well as to additional theoretical concepts. Tables with exemplary quotes of the interviewees can be found throughout the explanation of the second order themes. Yet, it has to be noted that these quotes just represent a selection of the quotes that best express the concepts. Appendix 11 provides a more detailed overview. The sequence of the explanation of the second level order categories goes along with answering the underlying research questions.

5.1. Process of the Project-based View

In accordance with the first research question “How does a project-based view unfold in the start-up context?”, the research objective was to explore and describe the process of embracing a project-based view in the entrepreneurial context. Two major core categories related to answering this research question were identified: the external project-based view and the internal project-based view. Second order themes are aggregated into each of these two core categories. Appendix 10 provides a detailed overview of the aggregated levels. Accordingly, the external project-based view and the internal project-based view are discussed in the subsequent sections starting with the external one.

5.1.1 Process of the External Project-based View

The external project-based view suggests that the start-up is seen as being one project in terms of a temporary organisation. The following section discusses how the process of embracing such a view unfolds based on the data gathered by interviews. The process is described using second order themes which were aggregated through the analysis of relevant first order concepts (see Appendix 10). The section will discuss the following second order themes: “entrepreneurial opportunity construction” which is followed by the “start-up self-identification as a temporary organisation” and finally “start-up transition to permanent organisation”.

5.1.1.1 Entrepreneurial Opportunity Construction

When the authors conducted the first round of interviews (see Appendix 1, Part II), the concept of “entrepreneurial opportunity construction” emerged. In the theoretical background two different perspectives were discussed: opportunity discovery and opportunity creation (Short et al., 2010, p. 54; Zahra, 2008, p. 243; Edelman & Yli-Renko, 2010, p. 833) as well as the propositions of some scholars to integrate both theories into opportunity construction where the entrepreneur created the opportunity by a discovery process (Edelman & Yli-Renko, 2010; Vaghely & Julien, 2010). While discussing the process of their venture creation the opportunity construction process was
explained by entrepreneurs based on their start-up examples and these descriptions are presented in Appendix 3-9.

However, along with describing the essence of the entrepreneurial opportunity, the interviewees described it as a process where they first discovered - according to their perception - a relevant gap and later on, after a series of brainstorming discussions, they decided to “commit” themselves to their start-up. This “commitment building” is also explained by Lundin & Söderholm (1995, p. 442f), when discussing the process of establishing relationships between individuals in the temporary organisations’ teams. Moreover, several participants, when referring to entrepreneurial opportunity, mentioned that they “developed” it (see Table 5 below) which is in line with the assumptions underlying both creation and discovery theories: the opportunity is transformed into the start-up by entrepreneurial efforts (Edelman & Yli-Renko, 2010, p. 840). Some of the entrepreneurs even noticed that they had a pool of entrepreneurial opportunities they were considering: “As an entrepreneur I had several projects I was working on” but after the evaluation process, they decided to focus on one: “So if you like, this transition between having a portfolio of projects to the focusing on one, then the first stage of this is to validate if it works”. This also corresponds to the process-based models of new venture creation, where the opportunity discovery is followed by the opportunity evaluation (Becker & Knyphausen-Aufseß, 2015, p.162; Shane & Venkataraman, 2000).

### Table 5: Second order theme “Entrepreneurial opportunity construction”.

<table>
<thead>
<tr>
<th>First-order concepts</th>
<th>Example of the interviewees’ words</th>
</tr>
</thead>
</table>
| **Opportunity construction process** | When we first thought about doing something in the very beginning we discussed many many things.(...) At that point it was just brainstorming. And once we got that the idea we have is something good we just started to work on it. But it was no structure, no responsibility either, if you had the time you did something, if you didn’t, you didn’t. So once it came to a stage where we realised and we decided to commit ourselves to the project, then it already became a project. From day 1 where we decided to really work on it the entire thing was a project.  

I couldn’t find specific tool to store all the things so we started to develop our idea. |
| **Personal portfolio of entrepreneurial opportunities** | I reset what I actually want in the next 5 years that forces me to make a project selection saying which of these projects I will turn into something more material. (...) So if you like, this transition between having a portfolio of projects to the focusing on one, then the first stage of this is to validate if it works. So what I mean by this, when I decide doing this for the next 5 years of my life, I need to be really sure that it is going to work. |
At this “turning point” from entrepreneurial opportunity to a more organized effort to pursue the start-up, the understanding of the external project-based view appeared for the first time: “So once it came to a stage where we realised and we decided to commit ourselves to the project, then it already became a project. From day one where we decided to really work on it, the entire thing was a project”. Most of the interviewees were quite clearly defining their start-up as a project. However, some did not show this understanding explicitly by instead referring to “product” or even “company” they focused on. Overall, the opportunity construction process is seen as the first step in the external project-based view of the start-ups.

5.1.1.2 Start-up Self-identification as a Temporary Organisation

The following second order theme “Start-up self-identification as a temporary organisation” became central to understand the external project-based view of start-ups. As mentioned before not all of the study participants referred to their start-ups as being projects explicitly. Some of them were even reluctant to call their start-up a project since they did not find it motivating: “We are doing technical project, company. I personally prefer to call it company. (...) If you call it project you already agreed to finish it if you get better opportunities or something”. Nevertheless, despite of the absence of explicit references to start-up as a project in some cases, all the respondents reflected upon the dimensions of the temporary organisation such as “time”, “external pressure” and “transition” which comply with the conditions for identifying the temporary organisation (Jacobsson et al., 2015, p. 15).

Table 6: Second order theme “Start-up self-identification as a temporary organisation”.

<table>
<thead>
<tr>
<th>First-order concepts</th>
<th>Example of the interviewees’ words</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Start-up as a project</strong></td>
<td>First of all, when it was just X (co-founder) and I, the whole start-up was the project but now of course it is our project, it is our baby.</td>
</tr>
<tr>
<td></td>
<td>In my opinion, a company is a project. It’s just one project that ends. I treat the company as a project.</td>
</tr>
<tr>
<td><strong>External pressure</strong></td>
<td>But we have to balance what the clients want and what the user want and what we want to be in 1 year or 2 years.</td>
</tr>
<tr>
<td></td>
<td>I guess it (pressure) has to do with three elements: legislation(...), customers want it, we know they wait for it, (...) and potential competition.</td>
</tr>
<tr>
<td></td>
<td>As any investor, I want 10 times multiplication of my investments.</td>
</tr>
<tr>
<td><strong>Time-bound perspective</strong></td>
<td>I don’t think it makes sense to plan too far ahead. I think of half a year - one year ahead.</td>
</tr>
<tr>
<td></td>
<td>We are working with technology so we can not secure our position. So we try to be as quick as possible.</td>
</tr>
<tr>
<td></td>
<td>I try to set milestones where I evaluate if i should proceed with the project. It’s like “gates” where I re-evaluate the business.</td>
</tr>
</tbody>
</table>
Initially it’s idea, you try to get some support, feedback from customers and peers, then a prototype...then to get sufficient number of users and transactions and then the next stage is external funding.

So I do project to create product, which will last longer.

We divide our project by milestones but in the end of our project we see business.

During the course of the interviews, all the start-ups were reflecting upon the link to their external environment which impacts their course of actions. By the external start-up environment, the following was meant: investors - even if investor is a start-up founder -, clients, competitors and macroeconomic factors such as legislation. For example, “I guess it (pressure) has to do with three elements: legislation, (...) customers want it, we know they wait for it, (...) and potential competition”. This pressure was perceived differently by start-ups: for some it created urgency which is reflected in the “time-bound perspective”, for others this pressure was mitigated by long-term orientation of their investors or ability to compromise with clients: “Our investors understand that we need time to develop”, “but we have to balance what the clients want and what the user want and what we want to be in 1 year or 2 years”. Some of the start-ups even mentioned that they try to be “self-driven” in their development as a way to cope with external pressure: “we decided to go slowly but independently. It’s because we want to be self-driven”.

Furthermore, all the start-ups understood that they are temporary in the way that either they need to reach certain milestones set by external or internal stakeholders or that they mention the termination of their venture by elaborating upon exit strategies: “I don’t see the final point of this company, I see potential exits at different stages” or “I try to set milestones where I evaluate if i should proceed with the project”. Here it is worth mentioning that although the interviewees admit the possibility and opportunity of the project termination by selling it to investors, they try not to focus and not to prioritise it. Overall, the participants, even when having a vision, do not plan “too far”. Most are planning on one year or even less: “I do have a vision of the final product but I keep in mind that it is no longer than 6 months from the current moment”. This reflects that start-ups follow the limited duration definition of temporariness, suggested by Kenis et al. (2009, p. 77f) understanding that their development is time-bound.

It is further worth mentioning that all the start-ups were composed of teams which is another dimension of the temporary organisation according to Lundin & Söderholm (1995, p. 442f). Most of the interviewees emphasized the importance of trust in their internal relationship during the interviews which affects decision-making (“trust is very important, so that everybody is aligned”). The details about the start-up teams are presented in Appendix 3-9.

Finally, as suggested by Jacobson et al. (2013, p. 581), each dimension of the temporary organisation implies transition driven by the choice to move from the initial state towards the target one. In the entrepreneurial context, apart from elaborating upon the vision as a target state, which will be further discussed, the interviewees outlined that they see their start-up being a temporary organisation as a way to transit from the initial
idea to a permanent organisation: “in the end of our project we see business”. Some of the participants referred also to “company” as the aimed destination while for others the term “company” was misleading as it implied legal obligations: “There are some very practical things like a company is a legal entity with legal obligations”. The process of transition was characterized by the evolvement of the initial idea or business model, for example: “the first model was very complicated and then we switched to a very simple tool, but it was too simplistic and now we are somewhere in-between”. This evolvement or “pivot” is representative for the start-up development (Blank, 2010, January).

Overall, though not all start-ups explicitly admit their venture to be a project in itself, the participants agree on the impact of the external environment making the start-ups to realise that they are time-bound. The time itself, being central to define the temporary nature of an organisation (Packendorff, 1995, p. 43; Bakker, 2010, p. 466; Kenis et al., 2009, p. 59; Jacobsson et al., 2016, p. 578) forms the external project-based view as discussed by all interviewed start-ups. This is also supported by the transition which start-ups aim to accomplish in a certain period of time.

### 5.1.1.3 Start-up Transition to Permanent Organisation

When discussing the transition, all the start-ups were expressing willingness “to create company” in a long-term perspective. Yet, the term “company” was not used by all the participants, for the reasons discussed earlier, but the permanent nature of the aimed state was obvious through the elaboration on eternity at which they aim: “But when you talk about the company you want that to be independent and has growth and, basically, that it is indefinite. And I want it for our start-up”. Even when discussing the exit strategy, though the start-up founders did not exclude the possibility of it, they considered it as “a long-term and not really motivating scenario”. This is in line with the “time” characteristic of the permanent organisation which is fundamental to their understanding (Lundin & Steinthorsson, 2003, p. 245; Lundin & Soderholm, 1995, p. 439; Grabher, 2002, p. 212). Moreover, another characteristic of the permanent organisation such as production processes (Lundin & Soderholm, 1995, p. 439) were mentioned by the interviewees by referring to “scalable processes”. Some start-ups also emphasized the importance of legal boundaries when addressing the external stakeholders such as investors or clients: “When dealing with investors, you always want to establish trust with them, by telling your story. When you tell it’s your company, your team and it will last longer, so it’s better to associate yourself with company, not just project”. Furthermore, the maturity of the start-up which was mentioned (“The word maturity is probably the best representation of what I mean”), is supported by the life-cycle literature (Hanks et al., 1993, p. 10).

Overall, this objective to transit to a permanent organisation, often referred as “company”, is goes along with the idea of Jacobsson et al. (2013, p. 579) who saw the temporary organisation “as a form of transitory unit in the permanent organisation” and suggested to link temporary and permanent organisations when developing new theories. However, in comparison to the corporate context where the permanent organisation may impact decision-making within the temporary organisation (project) or may serve as a platform for its creation and development (Jacobsson et al., 2013; Grabher, 2002, p. 581, 206), the entrepreneurial context seems to have more ambiguous boundaries between the understanding of “temporary” and “permanent” especially when considering the perceptions of the start-up founders. This is supported by the following
citation: “I don’t know how to answer when there is the exact moment the transition takes place. We started this start-up legally as a company. And we always see in the long term a company here”.

Table 7: Second order theme “Start-up transition to Permanent organisation”.

<table>
<thead>
<tr>
<th>First-order concepts</th>
<th>Example of the interviewees’ words</th>
</tr>
</thead>
</table>
| Start-up as a company             | I wouldn’t say it (the start-up) is exactly only a project. Because project has a feeling of something that is going to finish. But when you talk about the company you want that to be independent and has growth and, basically, indefinite. And I want it for our start-up.  
   Actually, project, I think, it’s a company, the same. Sometimes people call it project. But I prefer to call it company. Because it’s also about time: company can live forever and project will probably end some day (...) For us it’s significant difference to invest our time and money in project or into a company.  
   I see this start-up as a company, of course, because I want this start-up to be a company in some day and so I have to see it that way.                                                                                                       |
| Characteristics of the permanent organisation | Business for us starts when we stabilize our internal changes having more evolutionary development and we have constant income. At this stage we will be more concerned about making scalable processes.  
   Exit strategy (selling) is a long-term and not really motivating scenario for us.  
   If I then look at the distinction between company, it is materially different from being a project. It is rather the superset of things.  
   In communication, in everything that is formal, we are not a project.                                                                                                      |

5.1.2 Process of the Internal Project-based View

After having explained the process of the project-based view from an external perspective, the following section elaborates on how the process of the project-based view unfolds within the start-up. Since the authors realised based on the interview data that the start-ups’ structure their venture internally by projects which bundle tasks that have to be completed, the “internal project-based view” was introduced. In total, three second order themes have been aggregated from the list of first order concepts. These are the entrepreneurial strategy making, the Strategy realization through sequence project approach and the Strategy realization through multi-project approach which are assigned to the core category of the internal project-based view (see Appendix 10) and will be discussed in the following.
5.1.2.1 Entrepreneurial Strategy making

“Entrepreneurial strategy making” represents one of the second order themes aggregated from two first level concepts. During the interviews, the founders of the start-ups were often referring to their “vision” and the “strategy” when the authors asked them to elaborate upon their business model. It became apparent from the data that the majority of the founders had a vision that was either expressed by producing a certain state of the product or service as shown in the statement “Our vision in the long-term is to turn it (the start-ups product) into a self-learning software” or by a certain time frame reflected in the statement “In 5 years we want to have big clients that have around 100-200 offices”. Overall, across all interviews the founders stated to see their start-up being something long-term which is guided by a vision as well as by a business strategy. The business strategy is also mentioned throughout the interviews often referring to “strategic goals” though the strategy itself was not discussed in detail. Johnson (2015, p. 193f) discusses the relevance of having a clear vision and strategy making process for a start-up to be successful since this helps to focus the start-up efforts and to select the most attractive opportunities. This view is also shared by Collis (2016). Relating to strategy making, the interviewees highlight the necessity to align tasks inside the business with the business strategy. At this point, the link to the project-based view emerges since throughout the interviews the interviewees mention to be breaking down their strategy into projects as expressed in the statement “Our structure is the following: long-term strategy, project, ticket, sprint.” As such, the strategy of the start-up is reflected in smaller units, the projects which are “tools used to realize strategic goals”.

Within the process of the internal project-based view the data suggests that the entrepreneurial strategy represents the overarching guiding principle that is broken down to a more operational level by structuring work into projects. Looking at academia, the researchers have elaborated on the link between entrepreneurial strategy and projects but solely in the context of big corporations which strive for innovation by realising their entrepreneurial strategies selecting projects which have potential to bring about innovation (Meyer & Happard, 2000, p. 6). Overall, the relation between strategy and projects has been discussed for a considerable time ranging from focusing on the difficulties to link projects to strategy due to an enormous amount of projects undertaken without strategic focus (Englund & Graham, 1999, p. 52) towards a more recent stream suggesting that projects may contribute less than expected to the realisation of strategic goals (Young & Grant, 2013; Young et al., 2012). Yet, academia has mainly focused on mature companies in the private and public sector to investigate the relation between strategy and projects while the strategy-project link in the entrepreneurial context has been neglected so far. Midler & Silberzahn (2008, p. 241) though made an attempt to apply the portfolio approach usually known from the pharmaceutical industry to the start-up context highlighting to select only the projects that align with resource availability and with strategy in order to reduce risk.

Overall, the collected data implies that the founders put an emphasis on making a strategy and a vision and that they focus on the alignment between strategy and project which is two-fold: the top-down perspective suggests to break the strategy down into projects and the bottom-up approach suggests to validate the fit of an emerging idea that may become a project to the strategy supported by statements such as “We take the ideas that fit to our long term strategy”. At any rate, the strategy making process represents the starting point of the internal project-based view.
Table 8: Second order theme “Entrepreneurial Strategy making”.

<table>
<thead>
<tr>
<th>First-order concepts</th>
<th>Example of the interviewees’ words</th>
</tr>
</thead>
</table>
| **Vision & Strategy** | In 5 years we want to have big clients that have around 100-200 offices.  
In 2 years perspective, I want all founders to make money out of the projects. As any investor, I want 10 times multiplication of the investments we have made.  
I don’t see the final point of this company.  
Our vision in the long-term is to turn it into self-learning software.  
It fits with business strategy which is sort of a long-term vision, a mission with specific circumstances.  
We do long-term decisions: everything that we do we reconcile with our long-term vision, in our case it’s 10 years plus. |
| **Projects as means to realize the entrepreneurial strategy** | So this is the (internal) structure: long-term strategy, project, ticket, sprint.  
So some of these partial strategic directions and the sort of practical application of strategy then defines kind of how your project needs to be created.  
Projects are tools used to realize strategic goals. We take the ideas that fit to our long term strategy.  
They are short in time and these tiny projects sum up to bigger projects and these bigger projects sum up to a strategy. So our projects are a means to fulfil our goals. |

5.1.2.2 Strategy Realization through Sequence Project Approach

Regarding the internal project-based view, a view which was emerging was that a lot of the interviewees referred to projects taking a sequence perspective, meaning to gradually develop the start-up internally by a sequence of projects: “I need a first phase of that project which is basically validating the project. Then I moved to the next phase which is that I need to build a prototype which is then the next project. So then there is a next project which is that I need to fill a team”. As such, this perspective sees projects as a means of delivering work within the start-up in stages to foster the start-up development process. This view incorporates a clear time-boundness which goes along with the interviewees often referring to “milestones” and to introduce sort of “gates” at certain points to re-evaluate the development, reflected in statements such as “And effectively at each stage, if I fail one of those things I could not go forward. There are critical parts.” As such, the projects are mentioned to be in the context somehow “gates” which influence to pursue the start-up idea further or not. This may be an essential factor of the project-based view especially in the beginning of the start-up
development. Overall, this sequence approach is “a way of componentizing the business”. The “series of projects” leads to the successful development of the start-up as a whole since it provides the start-up team with a way of structuring their start-up and keeping track of milestones. This approach of using projects internally in sequence for strategy realization is in line with the “lineage” approach outlined by Midler & Silberzahn (2008, p. 481) being a possible way of developing the start-up as a “succession of projects”.

Table 9: Second order theme “Strategy realization through Sequence approach”.

<table>
<thead>
<tr>
<th>First-order concepts</th>
<th>Example of the interviewees’ words</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Start-up as a sequence of projects</strong></td>
<td>I need a first phase of that project which is basically validating the project. (...) Then I moved to the next phase which is that I need to build a prototype which is then the next project. So then there is a next project which is that I need to fill a team. (...) So there was no master project in x (name of the start-up) but there was a series of projects that would lead to it. A lot of corporations use phases for the internal deployment of systems, and for me I prefer projects because it implies a much more concrete and tangible set of actions. It also implies that there is some accountability and some sort of punishment or reward if it is done or not done properly. All the software development is a project. It’s one entire project but we develop the software in iterative cycles.</td>
</tr>
</tbody>
</table>

5.1.2.3 Strategy Realization through Multi-project Approach

Another second order theme which was aggregated from the data is the “Strategy realization through Multi-project approach”. After a thorough comparison of all interview memos, the process of how the project-based view unfolds internally was unambiguous. The interviewees deliberately mentioned in the first round of unstructured interviews that the work within their venture is structured by several projects which are undertaken in parallel on a “multi-project” basis. Yet, the way of structuring differs with some of the interviewees stating to have “internal and external projects” while “external ones are those when we start cooperation with someone and internal projects are global features, which bring value to the main project”. Further, the interviewees highlighted to be structuring internally by having several “main projects” such as development, clients and finance. Given the scarce literature in the field, only Midler & Silberzahn (2008, p. 481) mention and conceptualize this approach calling it the “platform approach” while the platform can be seen as the start-up and the “projects are the derivatives from the platform” which co-exist. As emerging from the data, the main projects are in a next step broken down into “sub-projects” or “tasks” which sometimes are referred to being “tickets” given the technological/IT background of most of the interviewed start-ups. Yet, the start-ups discussed criteria which they apply to projects in order to decide if they should be pursued or not. Apart from strategic alignment also “resources, time, budget and its (the projects’)

60
interdependencies” were mentioned. As such, this also is a crucial part in the process of selecting the right projects. Overall, this way of breaking down the main projects step by step into tasks reflects the “need to break the business up into discrete parts that fit together”. This clearly highlights the internal process character of the interviewed start-ups and supports the notion that projects are a means to help the start-uppers structure their venture by aggregating work that has to be done in parallel into main projects according to the works’ nature such as software development tasks. Even though the way start-ups break down their organisational structure is not emphasized in academia, the empirical findings go along with Ajam (2011, cited from Kuura et al., 2014, p. 222) arguing that entrepreneurs who implement their business plan become project managers who have to manage their start-up. Further, from the authors’ corporate working experience this approach of breaking down projects into smaller units is a common approach in the corporate setting so that basically the way start-ups seem to structure by projects is quite comparable to the corporate setting only on a smaller scale and with a simpler procedure. Yet, the data suggests that not all of the work to be done is assigned to one of the main projects since the interviewees used to differentiate between projects and tasks that have to be done on a routinized basis being “everyday activity”. “Internal project is something that is quite different from what we do “as usual”, it can work almost separately and can be developed into a separate project. They are like “satellites”. This distinction made by the founders shows a clear understanding of the characteristics of a project in comparison to tasks. Overall, the data gives insight into the process of the internal project-based view of strategy realization by managing parallel projects which are broken down to smallest operational units.

Table 10: Second order theme “Strategy realization through Multi-project approach”.

<table>
<thead>
<tr>
<th>First-order concepts</th>
<th>Example of the interviewees’ words</th>
</tr>
</thead>
</table>
| Project as a way of delivering and structuring internally| We have internal and external projects. External ones are those when we start cooperation with someone and internal projects are “global features” which bring value to the main project.  
We have 3 main project types: development, finance, recruitment. Within each we have several subprojects. One project in our case consists of many many tickets.  
Projects for me is a way of componentizing the business.  
I need to break the business up into discrete parts that fit together.  
It’s called “project tunnel”: first ideas are pitched, check strategic alignment, then evaluate idea in terms of resources, time, budget, its interdependencies, assign deadline and execute. |
| Project as tools versus flow of tasks                     | I do structure into projects. Maybe about 70% of the work go into a project and 30% don’t. There are processes that are ongoing or tasks that are too short to be put into a project.  
We call it tasks. It comes from life. We just divided it as everyday activity.                                                                                       |
It is worth mentioning that strategy realization through the multi-project and the sequence project approach do not contradict with each other. A start-up may adopt a sequence project approach but within the sequence may have sub-projects that run in parallel whereas another start-up may primarily adopt a multi-project approach but within the major parallel projects may pursue sub-projects in sequence. Yet, these approaches are distinguished to highlight the different overall approach start-uppers adopt.

5.1.3 Start-up Capabilities

In accordance with the second research question “What is the impact of embracing a project-based view for a start-up?”, the research objective was to uncover what the impact of having a project-based view is. The authors were able to derive from the data that embracing a project-based view impacts the start-ups’ capabilities: dynamic and operational. Dynamic and operational capabilities represent second order themes which are assigned to the aggregated core category of the start-up capabilities (see Appendix 10). Accordingly, the capabilities will be discussed in the subsequent sections by starting with the dynamic capabilities.

5.1.3.1 Dynamic Capabilities

Taking into account the external project-based view of the start-ups, the authors aimed at understanding what impact it has on start-ups by the second round of interviews (see Appendix 2). As the understanding of the start-up as a project was not always explicit but rather identifiable through reflection on the dimensions of the temporary organisation, the authors found it quite challenging to unpack the actual impact of the external project-based view in the case of start-ups.

However, all the start-ups elaborating on the external pressure and on the time limit stressed “agility” and “flexibility” as necessary conditions to survive and outperform their rivals. For example, “We try to be as agile as possible. We see it as the biggest competitive advantage compared to competitors”. Both “agility” and “flexibility” in this entrepreneurial context referred to the whole start-up: “we use agile to create vision of our project” and served as an element of the value proposition (“In our experience the highest value we have in comparison to our competitors is flexibility and speed”) while the value proposition is one of the core elements of a business model (Osterwalder & Pigneur, 2010, p. 22).

Indeed, even in the theory there is no universal view how to define organisational agility: such terms as “agility”, “flexibility” and “adaptability” are used in various sources (Sherehiy et al., 2007, p. 459). Having roots in software development, organisational agility is generally seen as an ability to cope with environmental changes by responding and quickly adapting to their impact (Holbeche, 2015, p. 11). Felipe et al. (2016, p. 4624f) refer to organisational agility as a key dynamic capability which allows organisations to behave efficiently by both responding to changes and identifying opportunities arising from the environmental dynamism. The dynamic capabilities are seen in academia as “the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments” (Teece et al., 1997, p. 516). As such, organisational agility and flexibility can be seen as dynamic capabilities.
Therefore, when analysing the memos, the authors discovered that the start-ups’ understanding of the temporariness of their venture enhances the dynamic capabilities of their start-up. Zahra et al. (2006, p. 919f) claim that the entrepreneurial process is a starting point for both dynamic and operational (substantive) capabilities and thus, represents a promising direction for further research. Other studies explore dynamic capabilities within the entrepreneurial context (for example, Newbert, 2005, Jantunen et al., 2005, Aramand & Valliere, 2012), however dynamic capabilities of start-ups remain to be under-explored.

Table 11: Second order theme “Dynamic capabilities”.

<table>
<thead>
<tr>
<th>First-order concepts</th>
<th>Example of the interviewees’ words</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agility</strong></td>
<td>We try to be as agile as possible. We see it as the biggest competitive advantage compared to competitors: we use agile to create vision of our project.</td>
</tr>
<tr>
<td><strong>Flexibility</strong></td>
<td>In our experience the highest value we have in comparison to our competitors is flexibility and speed. Within the structure (project, ticket, sprint) we are totally flexible. The main idea, I think, is to be flexible, and do these changes in your project, in your approach, because business changes, economic changes and changes become now really really fast.</td>
</tr>
</tbody>
</table>

5.1.3.2 Operational Capabilities

Since it was clearly emerging from the data that the start-ups do structure internally by projects, the authors used the second round of interviews to explore more in-depth what the impacts of this procedure are (see Appendix 2). Across the interviews it became evident that the interviewees see strong benefits in using projects as means to structure work internally reflected in statements such as “treating what I do internally as projects reduces risks, it reduces the error rate, it maximizes the efficient usage of resources and time, it adds clarity to roles and responsibilities”. Also the internal project structure is associated with projects being a means to “deliver a better quality product provided that your project was clearly defined and that you have a strategic focus”. This highlights that the full benefits from having an internal project-based view can only be fully exploited in case the project is well defined and strategically aligned. Further, it was emphasized that organising internally by projects “certainly is helping and forcing me to focus” and “it’s giving me a structure to remember all the things that need to get done” which highlights that projects provide a sort of guidance for the founders. Moreover, the founders emphasized that “project is a certain state where you can clearly define a goal” and that “we consider tasks in our daily business as projects by setting goals”. As such, the project is considered by the founders as a powerful tool to improve internal efficiency as well as to deliver a high quality product and to sharpen the internal focus by structure and by goal-setting. Again, when looking at academia, the impacts of having a specific project-based structure in a start-up have not been discussed yet - to the best knowledge of the authors. Nevertheless, when comparing the memos and the just mentioned factors it became obvious that internal projects support
the start-ups to manage their operations and to streamline their processes which is reflected in the definition of operational capabilities which are, among others, embedded in processes and routines and in the administrative coordination to get the job done (Teece, 2014, p. 330). Operational capabilities are rather associated with being static and encompassing the performance of operational and administrative functions in an organisational setting (Teece, 2014, p. 328). Consequently, as the authors perceive that structuring internal work by projects provides the start-up teams with the possibility to manage these operational and administrative functions by projects providing structure, increasing internal efficiency and enabling goal setting, these impacts are summarized into “operational capabilities” based on Teece (2014).

Further, another factor that was clearly emerging from the data was that almost all of the start-up teams “are using Scrum and Agile” to manage their start-up while “everything that needs to be done is divided up into sprints”. This may be caused by the fact that all of the business models of the interviewed start-ups had a technological/IT focus. At the same time, a lot of the interviewees mention to be building a minimal viable product (MVP) which aims at streamlining the service/product development processes in such a way that a minimum amount of resources is used. As the agile and the lean start-up approach also support the management of the start-ups’ operations and as they represent project management methodologies, these two first level order concepts are also assigned to the second order theme of “operational capabilities”.

Table 12: Second order theme “Operational capabilities”.

<table>
<thead>
<tr>
<th>First-order concepts</th>
<th>Example of the interviewees’ words</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Internal efficiency by projects</strong></td>
<td>Treating what I do internally as projects reduces risks, it reduces the error rate, it maximizes the efficient usage of resources and time, it adds clarity to roles and responsibilities.</td>
</tr>
<tr>
<td><strong>Projects support to deliver quality of the final product</strong></td>
<td>With projects you deliver better quality as the outcome so you should deliver a better quality product provided that your project was clearly defined and that you have a strategic focus.</td>
</tr>
</tbody>
</table>
| **Projects provide internal focus by clear goal-setting and structure** | Sometimes it happens that we consider tasks in our daily business as projects by setting goals. 
I think that project is a certain state where you can clearly define a goal. 
(Structuring by projects) certainly is helping and forcing me to focus. It’s giving me a structure to remember all the things that need to get done. |
| **Agile methodology**                                    | We are using Scrum and Agile. Everything that needs to be done is divided up into sprints. We treat sprints as a deliverable within the project. |
| **Lean start-up methodology**                            | Because there is a discipline of minimal viable product (MVP), it’s a lean start-up so we came up with MVP light. |
6. The Study’s Findings

Based on the previous chapter which has provided an in-depth analysis of the second order themes and the core categories, this chapter will aim at answering the two research questions of the study. In the core of the chapter is the presentation of a model that visualizes the relationships between the second order themes and the core categories and thus represents the basis for the explanation of the process of how a project-based view unfolds in the entrepreneurial context. Further, the authors will elaborate on the second research questions by addressing the impacts of a project-based view. Finally, the major findings of this study, based on the visual model, will be presented in form of six propositions.

6.1. Model of the Project-based View of Start-ups

As outlined in the beginning of this thesis, the objective was to come up with a model which represents the process of the project-based view and creates a fundament to build new theory. Based on the analysis of the previous chapter, the authors depicted the causal relationships between second-order themes (Entrepreneurial opportunity construction, start-up as a temporary organisation, permanent organisation, entrepreneurial strategy, multi-project approach, sequence project approach, dynamic and operational capabilities) and the core categories (internal project-based view, external project-based view and start-up capabilities) to answer the research questions. These causal relationships are visualized in the model below (see Figure 7) and will be explained more deeply in the following.

**Figure 7:** Model of the process of the project-based view.

Addressing the first research question, two project-based views were identified, namely the external and the internal project-based view. These will be explained in the subsequent sections starting with the external project-based view.
6.1.1 External Project-based View

The external project-based view represents the position when the whole start-up is seen as a temporary organisation, thus representing a project in itself. As mentioned earlier, not all study participants explicitly refer to their ventures as projects or even prefer to use other terms like “company” due to motivational reasons or their personal perception of the word “project”. However, the dimensions of the temporary organisation as well as the process of embracing such a view was reflected in the data.

The process of embracing an external project-based view starts when the entrepreneurs construct their entrepreneurial opportunity and commit themselves to initiate a start-up project. The evidence of linking two second-order themes comes from the data: “So once it came to a stage where we realised and we decided to commit ourselves to the project, then it already became a project. From day 1 where we decided to really work on it the entire thing was a project”. While working in the start-up, the founders constantly experience pressure coming from the external environment (expectations of clients, investors and other stakeholders) and thus understand the temporary nature of their start-up. Further, the time factor impacts the start-up strategy: though having a long-term vision, all the study participants do not plan their activities further than one year (“I don’t think it makes sense to plan too far ahead. I think of half a year - one year ahead”). However, despite of the temporary nature of the start-up, all the founders aim to make a transition towards a permanent organisation: “We divide our project by milestones but in the end of our project we see business”. Even though the terminology of the permanent organisation also varies across the participants, they refer to its characteristics by elaborating on the eternal perspective of development and on scalable processes.

6.1.2 Internal Project-based View

The internal project-based view is reflected in the fact that the start-ups in the study’s sample all refer to be structuring internally by projects. The authors were able to reveal that there are two predominant ways the start-ups use “projects” internally: the sequence project approach and the multi-project approach.

From a process perspective, based on Figure 7, the internal project-based view takes its starting point at the entrepreneurial strategy being one of the study’s second order themes. The interviewees clearly highlight that they have a strategy pursuing “strategic goals”. This strategy serves as a guiding principle to which the internal projects are aligned. The entrepreneurial strategy is broken down into projects which consequently reflect smaller strategic units: “They (projects) are short in time and these tiny projects sum up to bigger projects and these bigger projects sum up to a strategy. So our projects are a means to fulfil our goals”. This strategic alignment is a common approach taken in big project-based organisations and hence it is an interesting finding that the start-ups themselves are aware of this procedure trying to streamline their business by conducting internal projects which comply with their strategy.

In a next step, two major approaches have been identified from the data of how the start-ups break down their strategy into projects. The first approach is the so called “sequence approach” which means to be organizing work by a series of subsequent projects whereas e.g. the creation of a team is considered to be a project in itself.
The other predominant way that was emerging from the data is the “multi-project approach”. A lot of the start-up founders referred in the interview to “external and internal projects” which they pursue and they outlined their internal structure of projects being divided into main projects that e.g. comprise “development, finance and clients”. As such, these start-ups have a platform of several main projects which run in parallel and are often assigned specific responsibilities to within the team. Further, the interviewees explain that these main projects are then broken down to “sub-projects” and finally “tasks” or “tickets” being the smallest unit of the project and the overall entrepreneurial strategy.

At this point it is worth mentioning that these two approaches do not contradict with each other. A start-up may adopt a sequence project approach but within the sequence may have sub-projects that run in parallel whereas another start-up may primarily adopt a multi-project approach but within the major parallel projects may pursue sub-projects in sequence. This is also reflected in the arrows between both approaches (see Figure 7). Yet, these approaches are distinguished to highlight the different overall approach start-ups adopt.

6.2. Start-up Capabilities

Regarding the second research question, the authors revealed that capabilities play a crucial role in terms of the impact of adopting a project-based view. When discussing the outcomes of the external project-based view, it was mentioned that all study participants closely link their temporariness with the necessity to be “agile” and “flexible”: “If something is changing in the market and we need to be flexible so we have to have the sort of endurance to provide quality” or “So there is time element in it which reflected in our “project tunnel”. Since we try to be agile and as quick as possible and try to set priorities every day because we want to get to market as quick as possible. So urgency is for us extremely important”. Therefore, the authors concluded that embracing a project-based view enhances organisational agility which is considered to be a key dynamic capability (Felipe et al., 2016, p. 4624). Though in the academia the research on dynamic capabilities within new ventures is scarce, the scholars claim that dynamic capabilities indirectly impact performance of the venture which further affects its entrepreneurial choices (Zahra et al., 2006, p. 926). When discussing the impact of the external project-based view, it is worth mentioning that temporariness of the start-up also impacts its strategy: within the limited time frame, as the interviewed start-up planning period is less than one year, start-ups need to be structured to make the right choices when defining the internal projects to pursue. Thus, the external project-based view may also affect the development of the start-up operational capabilities. The authors agree with Zahra et al. (2006) that further research would be helpful in uncovering and testing the links between the development of operational and dynamic capabilities within new ventures.

When trying to uncover the impact of the internal project-based view on the start-up, it clearly emerged from the data that the interviewees associate positive implications with adopting an internal project structure which is reflected in statements such as: “treating what I do internally as projects reduces risks, it reduces the error rate, it maximizes the efficient usage of resources and time, it adds clarity to roles and responsibilities”. The major benefits that the interviewees associate with adopting an internal project-based view are that projects give them a clear focus as projects provide the start-uppers with a
sort of guidance of what has to be done. This guidance is also reflected in the interviewees' statements that projects facilitate to set clear goals. Further, the interviewees refer to the increased quality of the product or service that is to be delivered by structuring in projects. Moreover, the interviewees often mention to be using agile and lean methodology to manage the work inside the start-up. Overall, the findings of this study suggest that the operational capabilities of a start-up are greatly enhanced by taking an internal project-based view - a multi-project or a sequence approach. Projects as means to provide structure, guidance, to set goals and increase efficiency suggest that these factors may clearly enhance the start-ups operational capabilities. At this point it is worth mentioning that it may not only be operational capabilities that are enhanced by internal projects. Internal projects may instead also lead to dynamic capabilities for instance as the start-up team may learn from project to project and apply the lessons learned to a next project (Midler & Silberzahn, 2014) while “learning” would represent being a dynamic capability. Yet, this has not consistently emerged from the interviews so that the authors can only highlight the operational capabilities being a positive impact of adopting an internal project-based view.

6.3. The Study´s Propositions

The following propositions will summarize the findings and give implications for further research. In total, the authors propose six propositions that align with the suggested visual model.

As mentioned in the analysis and in the findings chapters, the external project-based view was discovered by the authors. This is in line with Lindgren & Packendorff (2003, p. 86) who argued that entrepreneurship can be considered from the project-based view. When discussing the relationships between temporary and permanent organisations, Ekstedt et al. (1999, p. 5) have mentioned that this area still requires further clarifications as their interaction is sophisticated. In contrast to previous studies (see Jacobsson et al., 2013, p. 579; Lindgren & Packendorff, 2002, p. 7) who claimed that temporary organisations are “transitory units” within permanent organisations as their output “is diffused into its permanent context”, the authors claim that start-ups as temporary organisations are transitory to the permanent organisation. This transition implies producing long-lasting output and/or transfer of the whole start-up management team to a permanent state. The statement “I see this start-up as a company, of course, because I want this start-up to be a company in some day and so I have to see it that way. First of all, when it was just X (co-founder) and I, the whole start-up was the project but now of course it is our project, it is our baby” exemplifies this. Since start-ups as temporary organisations do not operate within a permanent context but aim to reach it, the relationships between temporary and permanent organisations in the entrepreneurial context of new venture creation appear to be different from what has been previously discussed. As such, the authors suggest the following proposition P1:

**P1:** Start-ups see themselves as a transitory unit to the permanent organisation.

As discussed in the analysis chapter (second order theme “Start-up self-identification as a temporary organisation”), not all start-ups explicitly identified themselves with being a project, however all of them showed an understanding of their temporariness. For example, while referring to the start-up as a “company” one of the founders mentioned
the following about strategy making: “10 years for us is too far, even 1 year is quite far”. Apart from having a long-term vision, all other respondents also talked about the time-horizon of their strategy which is about one year or less. For instance, “I do have a vision of the final product but I keep in mind that it is no longer than 6 months from the current moment”. Therefore, the authors claim that the understanding of the temporary nature of start-ups impacts their strategy making since those actions which can be accomplished on a short-term basis are prioritized. As mentioned earlier, strategy making and especially its link to projects in the entrepreneurial context is not well researched in academia. Moreover, the role of strategy sometimes is underestimated in entrepreneurship (Collis, 2016, p. 63). The scholar suggests that start-ups should make use of the “lean strategy process” which contains both top-down and bottom-up approaches to strategy formulation and guides their choices of viable opportunities (Collis, 2016, p. 63ff). Therefore, the authors claim that start-ups’ self-identification (explicit or implicit) impacts the start-ups’ strategy formulation by putting the focus on short-term actions which are aligned to their long-term vision. As such, the following proposition P2 is presented:

**P2: Since start-ups identify themselves as temporary organisations, they tend to use short-term horizons in the strategy formulating process.**

As outlined in the analysis as well as in the findings chapter, one of the predominant views is the internal project-based view. As highlighted by the interviewees of the study’s start-up sample, start-ups break down their strategy into projects which are then again broken down to the smallest operational unit. At the same time, every idea that may turn into a project is proved to be strategically aligned. This bottom-up and top-down approach of strategic alignment is commonly used in big corporations while the authors suggest - based on the study’s findings - that also in the start-up context this is an approach that start-uppers are well aware of and integrate it into their decision-making. Recently, Collis (2016, p. 67) has also emphasized the importance of feedback in reshaping the start-up strategy. However, the role of strategic alignment within start-ups can be considered as a new finding which gives insights into the applicability of common project management procedures to the entrepreneurial context. Overall, this alignment of the projects with the strategy in the end helps the start-ups to deliver maximum value to their customers. During the interviews it became apparent that the start-ups put a high emphasis on the customer which is reflected in the start-ups trying to match the customers’ expectations: “I guess it (pressure) has to do with three elements: legislation, (...) customers want it, we know they wait for it, (...) and potential competition”. In this quotation the customer is seen as a source of pressure which the start-up has to encounter fast in order to deliver maximum customer value. Overall, the customer is given highest priority in terms of long-term customer relationships: “I want to have a qualitative project with long-term customer loyalty”. Consequently, it can be said that the start-ups aim at providing customers with a service that benefits them which is facilitated by aligning the start-up’s projects to the strategy in order to keep the strongest customer focus. As such, the authors suggest the following proposition P3:

**P3: While strategy realization, start-ups keep track of strategic alignment of their internal projects to deliver maximum value to their customers.**
As shown in Figure 7, the entrepreneurial strategy making is broken down into projects, thus to smaller operational units. It emerged from the interview data that the start-ups adopted two predominant ways to break down their strategy: the multi-project approach and the sequence project approach (Midler & Silberzahn, 2008). The multi-project approach is reflected in having major projects within the start-up such as finance, development and HR which run in parallel and which are further broken down to tasks or “tickets”. The sequence project approach on the other side is reflected in first of all developing a prototype e.g. of a software which is a project and which may be followed by a next project e.g. hiring people. Both approaches have in common that they translate the strategy into projects, though they are conducted in sequence or in parallel. Since the entrepreneurial strategy is broken down into these project approaches but at the same time also every idea that comes up in these projects is checked to be aligned with the entrepreneurial strategy, the arrows in Figure 7 reflect the two-sided relationship between strategy and project approaches - bottom-up and top-down. Yet, it is not cut that a start-up solely adopts a multi-project or a sequence project approach. A start-up can also adopt a multi-project approach but within these multi-projects make use of a sequence approach to structure the main projects’ subprojects. Alternatively, the start-up can manage the phases of its development as projects and break it down into parallel sub-projects. For instance, “…so a big project is to develop the MVP and a subproject is to run the alpha version and the alpha test. There are some kind of mega things, steps, which we kind of execute in 6 months and within these we have sub-projects”. As such, one approach can influence the other which is represented by the two-sided arrow between the multi-project and the sequence project approach in Figure 7. Both approaches are used to realize the start-up strategy. This is reflected in the proposition P4:

**P4: Start-ups may use multi-project or sequence project approaches in combinations to realize their entrepreneurial strategy.**

Aligned with the second research question considering the impact of the external project-based view, start-ups enhance their dynamic capabilities by adopting an external project-based view. By understanding their probable short life span, start-ups embrace agility and flexibility which are considered to be key dynamic capabilities (Felipe et al., 2016, p. 4624), as the philosophy shaping their priorities. For example, “The main idea, I think, is to be flexible, and do these changes in your project, in your approach, because business changes, economic changes and changes become now really really fast”. Therefore, being temporary motivates them to be efficient in working with the external environment. For instance, one start-up when discussing the current stage of development mentioned: “We have finished all our back-end development, so our programmers have some free time. Now we are outsourcing them to other start-ups in the area of X (area of business)”. This case shows not only how start-ups react to external pressure but also how they use the external environment as a source of new business opportunities. This goes along with the definition of dynamic capabilities suggested by Felipe et al. (2016, p. 4624f) and Teece et al. (1997, p. 516). Therefore, considering the lack of clarity about capabilities in the context of new ventures (Zahra et al., 2006, p. 920), the following proposition is considered to be relevant:

**P5: Adopting an external project-based view enhances a start-up’s dynamic capabilities.**
Moreover, the authors investigated the impact of the internal project-based view on the start-up and were able to identify that it enhances the start-up’s operational capabilities. According to the proposition P4, a sequence project approach, a multi-project approach or a combination of both can be applied for start-up strategy realization. The causal relationship between an internal project-based view and operational capabilities was clear when start-ups elaborated how structuring by projects helps them in their daily activities. Both agile and lean start-up methodologies were practiced as a part of the daily routines to cope with a constantly changing environment: “We run every day stand-up meetings with programmers. (…) Sometimes, we do retrospective analysis”. Moreover, according to the interviewed start-ups, strategy realization by projects “reduces risks, it reduces the error rate, it maximizes the efficient usage of resources and time, it adds clarity to roles and responsibilities and you deliver better quality”, it helps to integrate new employees faster, to manage workload better, to improve quality of the output and finally, to keep focus on results. The mentioned benefits and methodologies support efficiency of the internal routine, more specifically the management of their operational functions such as recruitment, IT development or client relationships. This is aligned with the understanding of operational capabilities in academia (Teece, 2014). Therefore, the authors suggest the following proposition P6 to explain the causal relationship:

**P6:** Adopting either a sequence, a multi-project approach or a combination of both in strategy realization enhances a start-up’s operational capabilities.

It is worth mentioning that in the findings chapter the authors highlighted that the dynamic capabilities may not be necessarily only associated with the external project-based view and operational capabilities not solely with the internal project-based view. However, further testing of the suggested propositions will help to bring more clarity in this regard.
7. Concluding Thoughts

The final chapter summarizes the findings based on the conducted empirical study. Further, the theoretical contributions of the study will be presented followed by the practical contributions. Finally, the authors will elaborate on the limitations of the study and will provide suggestions for further research.

7.1. Conclusion

The overall objective of this thesis was to bring light into a nascent area of research that links project management and entrepreneurship. Specifically, the start-ups’ view on projects was subject to be explored from a process perspective. To recap, the guiding research questions of this study were:

*How does a project-based view unfold in the start-up context?*

*What is the impact of embracing a project-based view for a start-up?*

The authors succeeded in building new theory by explaining the process of adopting a project-based view and discovering two predominant views: the external and the internal project-based view. The model (see Figure 7) explains the process of the project-based view, the connection between the external and the internal project-based view and their impact on the start-up. The external project-based view starts with the entrepreneurial opportunity construction when the entrepreneurs decide to commit themselves to their idea. Later on, the start-ups identify themselves as temporary organisations by elaborating on its dimensions. Yet, being temporary organisations, start-ups still aim to transit to a permanent organisation since they see an eternal development of their venture. The self-identification as a temporary organisation impacts the start-ups’ strategy making process by putting the focus on short-term actions which are valuable for their stakeholders. Having decided on the strategy, which is not more than one year long, start-ups break the strategy down first into projects, then into sub-projects and finally, into tasks. Those projects can be executed in sequence or in parallel or using a combination of both approaches. Moreover, strategy realization itself is not a one-way process since strategic alignment is checked frequently to ensure the fit of projects to the start-up strategy and to the long-term vision. Finally, the external project-based view enhances dynamic capabilities, while the internal project-based view contributes to enhancing the start-up’s operational capabilities. These findings suggest that projects play a crucial role in the start-up development process.

7.2. Theoretical Contributions

Several scholars (see Lundin & Söderholm, 1995; Lindgren & Packendorff, 2003; Lindgren & Packendorff, 2002) considered temporary organisations to be a linking concept in the area of project management and entrepreneurship. However, to date there was no study which aimed at explaining how the project-based view unfolds and what its implications for start-ups are. Using the grounded theory approach which is considered to be appropriate for building new theory, this research has led to the creation of a new model (see Figure 7) which explains the relationships between the identified second order themes and core categories within the project-based view. Moreover, six propositions, based on the model, were developed for further testing.
Therefore, the study’s findings contribute to the understanding of the project-based view of start-ups, which are arguably one of the best representations of entrepreneurship. By explaining the process and its implications on the start-up, the authors contributed to the knowledge of factors that impact the development of dynamic and operational capabilities which is considered to be scarce in current academia (Zahra et al., 2006).

Moreover, the empirical findings showed that the concept of “temporary organisation” is relevant for exploring entrepreneurial acts, though the concept itself is new to start-ups and requires understanding of its elements and dimensions, as identified in previous studies (see Jacobson et al., 2013, Jacobsson et al., 2015). The early studies, presenting “project” through its constraints (time, budget and scope) (see Gaddis, 1959; Butler, 1973; Pinto & Prescott, 1988) were not productive as they restricted start-ups from explicitly embracing the project-based view. Therefore, the study showed one more path for further research in the area of rethinking project management by exploring the projects and their value in its specific context (Winter et al., 2006).

Furthermore, the study contributed to the entrepreneurial area of research by clarifying the definition of the start-ups, through the synthesis of multiple sources. The developed definition may guide sampling in further studies and solve validity issues spotted by Luger & Koo (2005, p. 17). Overall, the study prepared a platform for further studies aimed at linking project management and entrepreneurship as suggested by Kuura et al. (2014, p. 228). The concept “temporary organisation” was placed in the entrepreneurial context and the project-based view and its implications were explained using the qualitative data.

7.3. Practical Contributions

Regarding the practical contributions, firstly start-up founders and their team members may find it beneficial to reflect upon the study conclusions, considering the impact of embracing a project-based view on the start-ups’ dynamic and operational capabilities. Those start-ups which did not find the term “project” applicable to their venture or internal routines may find it interesting to explore the concept of “temporary organisation” and thus better understand their aspirations to transit towards a permanent state. Besides, taking into account that the study is not restricted to a particular country or industry setting, there is an opportunity for cross-learning both for the start-ups from various backgrounds but also for project managers who would like to move away from the corporate context.

Moreover, the study’s findings and propositions may guide governmental bodies, incubators and accelerators, consulting firms, as well as organisations which aim at supporting start-ups in designing their entrepreneurial programmes. First of all, the start-up definition will help to narrow down the focus of the programmes since start-ups are quite different from other SMEs. Further, an understanding of how a project-based view unfolds will help to tailor the content of the educational workshops aimed at improving skills relevant for start-ups: as the study showed all the study participants value their dynamic capabilities, and organisational agility which requires a more flexible project management toolkit. Finally, an understanding of the impact of embracing a project-based view will help to better articulate the benefits of having such support programmes for entrepreneurs and measure their effectiveness.
Last but not least, the study’s findings may help to tailor educational programmes for individuals, aiming at entrepreneurial careers, and thus increase the probability of success of their ventures. The entrepreneurial educational programmes may benefit not only from applying project-based learning but also from adjusting their content towards modern project management terminology and methodology which emphasizes contextual factors and the impact of the external environment. Thus, overall the study supports the claim of Blomquist et.al. (2010, p. 5) of making project management research relevant not only for academia, but also for practitioners by adopting a “project as practice approach”.

7.4. Limitations and Suggestions for Further Research

The authors were able to draw upon a rich set of data gained from in total eleven interviews conducted from a sample of seven start-ups. This data set proved to be sufficient for discovering the recurrent patterns in the data but further contact and involvement in the context of the start-ups could have provided more insights. Given the limited time frame, the authors were not able to conduct a longitudinal study. Yet, a longitudinal study in the case of grounded theory would have provided deeper insights especially for the purpose of this study which focused on uncovering the process of the project-based view. A longitudinal study would have enabled to explore how the external and internal project-based view evolves over a longer period of time. This limitation goes along with another limitation of this thesis which is the neglect of including different data sources in terms of data triangulation. The authors solely conducted interviews given the limited time frame and given a limited amount of other information sources that provide insights into a project-based view of a start-up. Yet, in a future longitudinal study researchers could make use of observations as another data source. Observations would provide insights into, for instance, how the start-uppers deal with projects on a daily basis, the way they structure internally and the exact way they decide on pursuing projects as this may differ from what the founders say they were doing. Pursuing a longitudinal study about the implications of the impact of adopting a project-based view would also be beneficial since it would explore what the impact of adopting a project-based view is in the long run and how operational and dynamic capabilities may evolve over time.

Further, only the view of one of the founders of the start-up was taken into account. Especially for the second research question of exploring the impact of a project-based view, interviewing all founders and co-founders of the start-up and the start-ups’ employees could have provided different results. This goes along with some of the participants themselves mentioning that their understanding of “project” is very subjective and that other team members may have a different understanding.

The start-ups which were part of the study were located all over the world and were sometimes even operating with founders and co-founders being in and from different countries. Moreover, the start-ups were operating in different industries while all had a strong technological/IT focus in their business model. The objective of the study was not to take country or industry specific factors into account since first of all major and general concepts were to be discovered. Yet, where further research is conducted, country specific studies on start-ups could focus on the effects of the cultural and industry background and its implications on the process of the project-based view as
well as on its impact. This would provide interesting insights into the general applicability of the study findings in different contexts.

Furthermore, from the methodological perspective, the authors applied grounded theory as a research methodology for the first time. Even though the authors dived deep into the literature of how to properly collect and analyse data in the grounded theory approach and even though their thesis mentor guided them in the process, there might be methodological weaknesses given the complexity of this methodology and the experience needed to conduct research by grounded theory (Suddaby, 2006, p. 640). This goes along with potential misinterpretations of data which may be a limitation especially in the very subjective process of data analysis in grounded theory.

The authors tried to avoid misinterpretation as much as possible by regularly revisiting the data and by always coding and analysing the data independently from each other followed by a long discussion of both authors’ approaches. However, there is a risk of interpretive bias which might be also caused by the language barriers and the previous project management knowledge of the authors.

When analysing the data, the authors were primarily focused on the interpretation of the obtained data set and its connection to current theoretical studies. However, in the context of discussing dynamic and operational capabilities, the literature around this topic in the entrepreneurial context is scarce (Zahra et al., 2006, p. 919f) and the propositions are not tested yet. Therefore, further studies might go deeper into understanding dynamic and operational capabilities of start-ups, their development and their impact on start-up performance. Overall, proving the proposed propositions by a large quantitative study would be a suggestion for further research to examine the generalizability of the study’s results.

Even though this was not the focus of the study and was consequently neglected, the data emerging from the first round of unstructured interviews implied that especially for the external project-based view the perceptions differ widely in terms of seeing start-up as a company or as a project. This may be based on the fact that the founders want to consider their start-up as being long-term which is why they prefer to see their start-up as a company. In a future study it would be interesting to go deeper into the founders’ perceptions and into the motivational aspect when using the term “project” by start-ups since it seems to impact the understanding of the project-based view.

Overall, the findings suggest that practices that have been established in the corporate context such as the selection of projects by strategic alignment are also applicable in the entrepreneurial context. Consequently, researchers could concentrate their future studies on exploring the applicability of project management best practices of large companies to the start-up context.
List of References


Appendices

Appendix 1: Interview guide of the first (unstructured) interview round.

Unstructured interviews held from 7th of November to 23rd of November, 2016
Held via Skype with founders/co-founders of start-up
Duration: 35-60 minutes

Interview Guide

Part I: Introduction

- The authors introduce themselves and thank for the time of the interviewee
- Short introduction of the study: exploring how a project-based view is embedded by entrepreneurs, namely start-up companies
- Asking for the consent on audio recording the interview

Part II: Discussing the start-up and its characteristics

- What is your role in the start-up?
- Could you tell us about your start-up and the business model?

If not covered by the previous question, questions for the specific start-up characteristics were posed:

- When did you start with your start-up?
- How did you find your entrepreneurial idea (opportunity)?
- How many people are working for the start-up now? How many of those are founders and how many are employees?
- How are you organized internally?
- How do you usually communicate with each other?
- How do you take decisions within the start-up?
- How do you fund the start-up? Is your business model viable?
- What innovative strategies do you use?

Part III: Exploring the start-ups’ project-based view

Aspects to be covered (with the number of interviews more and more aspects were added since concepts emerged from the interviews that were then further explored)

- understanding the term “project” in the entrepreneurs’ context
- understanding if the start-up is considered being a project through elaborating on dimensions of the temporary organisation
- understanding if entrepreneurs use “project” internally referring to their daily routine

Wrap-up: Thanking for the time and support & asking for the willingness and availability for a second interview.
Appendix 2: Interview guide of the second (semi-structured) interview round.

Semi-structured interviews held from 23\textsuperscript{rd} to 30\textsuperscript{th} of November, 2016  
Held via Skype with founders/co-founders of start-up  
Duration: 25-40 minutes

<table>
<thead>
<tr>
<th>Interview Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Part I: Introduction</strong></td>
</tr>
</tbody>
</table>
| ● Thanking for the willingness and availability for a second interview  
● Asking for the consent on audio recording the interview |
| **Part II: Internal project-based view** |
| ● Could you please explain us in detail how you structure internally by projects (major projects, sub-projects etc.)?  
● How did you start using projects internally?  
● What impact does having an internal project-based view have?  
● Could you please explain how you see “agility”/ “flexibility” in your context? Do you understand using “agile” as only being connected to your product/service development or is “agility” a general approach for you to manage your start-up? |
| **Part III: External project-based view** |
| ● Do you see your start-up being temporary? How different is it from being permanent organisation, according to your opinion?  
● What does the term “company” mean for you?  
● Can you please explain us if there is any specific point/circumstance when a project turns into being a company?  
● Do you think there is a difference between managing a start-up as a project and managing a start-up as a company? |
| **Wrap-up:** Thanking for the time and support and offering to send the final Master thesis. |
### Appendix 3: Start-up characteristics of start-up A1.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interviewee</strong></td>
<td>Co-founder; 6 years of working experience in one of the big four consulting companies; working experience in project management and in the context of project management software</td>
</tr>
<tr>
<td><strong>Age of start-up</strong></td>
<td>14 months old</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>3 co-founders aiming at employing 3-4 employees in the next 6 months</td>
</tr>
</tbody>
</table>
| **Business idea and stage** | Developing a project and change management software for companies in the turnaround phase with the vision of turning it into a self-learning project management software  
Start-up is in the late stage of evaluation slowly incorporating personal expenses and in the midst of converting into a viable business |
| **Entrepreneurial opportunity** | Opportunity was constructed by the founder: Founder worked in the field for 5 years so the opportunity was created from the personal “pain”/understanding that the process could be optimized using a specialized software. Indirectly, the understanding was shaped by legislation changes. |
| **Organisational structure** | Open, still informal organisational structure but starting to introduce formal structures with weekly and monthly scheduled meetings and with introducing a clear task distribution |
| **Decision-making, level of centralization** | Decisions are guided by the criteria of strategic alignment  
Keep flexibility within “strategic tunnel”  
Decisions are taken together with the exception of the fields Finance and Development |
| **Innovation strategy** | Have strategy for 10+ years; development into a self-learning software  
Develop project which is considered to be “impossible” by industry experts |
**Appendix 4: Start-up characteristics of start-up A2.**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interviewee</strong></td>
<td>Serial entrepreneur; founder of the start-up; its only investor.</td>
</tr>
<tr>
<td><strong>Age of start-up</strong></td>
<td>Started 1,5 ago; first release was 1 year ago</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>4 co-founders; 1 founder is a developer</td>
</tr>
<tr>
<td><strong>Business idea</strong></td>
<td>Music platform which allows tracking news about music bands but also recommends music based on the users’ preferences</td>
</tr>
<tr>
<td><strong>Entrepreneurial opportunity</strong></td>
<td>Entrepreneurial opportunity constructed through discovery process: “I’m a music fan since 12 years old. (...) Once I realized that I track a lot of groups but I spend a lot of time tracking them in various web-sites, blogs, newspapers etc but I still miss some news. So I started to look for a tool for this purposes. I found some alternatives but they didn’t fully meet the purpose. So I realized there was no product like this and this is an interesting niche where I have experience and passion.”</td>
</tr>
<tr>
<td><strong>Business model stage</strong></td>
<td>Business model under development (looking for financial viability): had to redefine the target audience, since the initial one was too narrow, at the stage of defining revenue streams Product released, currently develop the product and looking for financial viability.</td>
</tr>
<tr>
<td><strong>Organisational structure</strong></td>
<td>Informal, simple and overlapping roles</td>
</tr>
<tr>
<td><strong>Decision-making, level of centralization</strong></td>
<td>“Democratic” but with high level of centralization around the core founder and investor</td>
</tr>
<tr>
<td><strong>Innovation strategy</strong></td>
<td>Founders refer to their product as “unique” as there were no direct competitors identified</td>
</tr>
</tbody>
</table>
Appendix 5: Start-up characteristics of start-up A3.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interviewee</strong></td>
<td>Founder; serial entrepreneur; working experience as a consultant and as a professor at a highly ranked business university</td>
</tr>
<tr>
<td><strong>Age of start-up</strong></td>
<td>Passively since April 2015; actively pursuing start-up since February 2016</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>3 co-founders dispersed around the globe contracting a development company to develop their NPV network</td>
</tr>
<tr>
<td><strong>Business idea</strong></td>
<td>Mobile based 'network of networks' for time-poor professionals (and later the public) to discover people across networks, share information and solve problems focused on a card-swipe interface with data analytics and machine-learning that delivers highly relevant content and connections for company networks and other types of associations</td>
</tr>
</tbody>
</table>
| **Entrepreneurial opportunity** | Constructed by the entrepreneur:                                                                                          

  “…being in the networks by myself for 25 years I’ve realized that we humans are terrible in making the connections…”

  “I created and crafted the idea directly by myself”                                                                 |
| **Business model stage**        | Opportunity evaluation: at the interview point of time start-up is close to finishing the alpha version                                                                                                  |
| **Organisational structure**    | Open, simple, informal and globally dispersed organisational structure                                                                                                                                   |
| **Decision-making, level of centralization** | CEO consulting with the CTO talking through the issues; with data scientist co-founder based in New Zealand communication flows via the tool “slack” |
| **Innovation strategy**         | Application which uses data analytics as a “secret sauce” to modify the algorithm each time the user makes a swipe; proactive behaviour in dealing with investors |


Appendix 6: Start-up characteristics of start-up A4.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interviewee</strong></td>
<td>Founder of the start-up; worked in (project-based) consultancy for a few years, worked in a family business for another 3 years and completed a MBA degree at INSEAD.</td>
</tr>
<tr>
<td><strong>Age of start-up</strong></td>
<td>From initial idea approximately 6 months old; platform launched recently</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>“Initially we had 5 people in the team”                                                                                             “Now it’s one founder and one part-time CTO”</td>
</tr>
<tr>
<td><strong>Business idea</strong></td>
<td>Developing a platform for transferring money by using bitcoins; targeting markets that are less attractive for competitors (e.g. Vietnam, South Korea and Argentina)</td>
</tr>
<tr>
<td><strong>Entrepreneurial opportunity</strong></td>
<td>Constructed by the entrepreneur and guided by his perceptions: “While studying in INSEAD I was looking for new technologies that would allow to build innovative business models. The most straightforward thing for me was money transfer”</td>
</tr>
<tr>
<td><strong>Business model stage</strong></td>
<td>Business model is under development: “We are at the stage of attracting users to the launched platform, though the business model still is under development due to the licensed, regulated market for money transfer”</td>
</tr>
<tr>
<td><strong>Organisational structure</strong></td>
<td>Simple, informal and very founder concentrated organisational structure</td>
</tr>
<tr>
<td><strong>Decision-making, level of centralization</strong></td>
<td>Use participative decision but founder himself mainly drives the decision-making process; decision areas divided into marketing, operations and IT; use tools like Slack and Trello to communicate and collaborate.</td>
</tr>
<tr>
<td><strong>Innovation strategy</strong></td>
<td>Use of bitcoins allows implementing innovative business models.</td>
</tr>
</tbody>
</table>
Appendix 7: Start-up characteristics of start-up A5.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interviewee</strong></td>
<td>Studied Finance in the New Economic School in Moscow; serial entrepreneur; founder (CEO)</td>
</tr>
<tr>
<td><strong>Age of start-up</strong></td>
<td>2 years old</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>12 people; 2-3 freelancers who are 100% engaged into the project; 2 founders</td>
</tr>
<tr>
<td><strong>Business idea</strong></td>
<td>Special transport platform for inter-urban bus communication</td>
</tr>
<tr>
<td></td>
<td>“We want to unite auto-stations, bus transport companies and final users, who want to buy ticket. We are also information service for users (timetables, etc) and also we take feedback from the customers.”</td>
</tr>
<tr>
<td><strong>Entrepreneurial opportunity</strong></td>
<td>Entrepreneurial opportunity is constructed using a discovery process: “We researched the case in the university the case of Red Bus company and I liked the idea and personally I like to travel so I enjoyed the idea of the platform. Later together with our investors we tried to push some legislation changes to facilitate the process of going on-line among auto-stations and transport companies”.</td>
</tr>
<tr>
<td><strong>Business model stage</strong></td>
<td>Entrepreneurial opportunity evaluation: Business model is refined. “We are registered LLC company.” “We are investors project (not financially viable)”</td>
</tr>
<tr>
<td><strong>Organisational structure</strong></td>
<td>Flexible, flat, informal and overlapping roles. “We divide responsibility for technical and economical but still we do a lot of things together”</td>
</tr>
<tr>
<td><strong>Decision-making, level of centralization</strong></td>
<td>“Decisions concerning shares we discuss with investors and decide with them; but general decisions on our own on informal basis”. “We need all to deeply understand all the technical aspects of the platform we are doing”.</td>
</tr>
<tr>
<td><strong>Innovation strategy</strong></td>
<td>Though the business idea is not new in other segments or countries, in the particular market niche in Russia it is innovative.</td>
</tr>
</tbody>
</table>
Appendix 8: Start-up characteristics of start-up A6.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interviewee</strong></td>
<td>Initiator of the start-up; Trained information web designer; serial entrepreneur pursuing different start-ups/businesses sequentially and parallelly</td>
</tr>
<tr>
<td><strong>Age of start-up</strong></td>
<td>4 years</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>Four founders and one paid employee developing the platform as a CTO</td>
</tr>
<tr>
<td><strong>Business idea</strong></td>
<td>Web based tool to organize users’ relevant content (e.g. books, articles, videos, contacts) within one platform for B2B or B2C customers</td>
</tr>
<tr>
<td><strong>Entrepreneurial opportunity</strong></td>
<td>Constructed by entrepreneur using a discovery process: was previously struggling to find and put concepts, ideas, tools, books into a well-functioning tool for structuring content</td>
</tr>
<tr>
<td><strong>Business model stage</strong></td>
<td>Business model is still under development:</td>
</tr>
<tr>
<td></td>
<td>Went through different ideas and versions having different degrees of complexity; at the moment of the interview the version 2.0 is launched being the “beautiful visual version” which is still not really clear for all customers; currently changing pricing model</td>
</tr>
<tr>
<td><strong>Organisational structure</strong></td>
<td>“Badly horizontal”: structure is simple and informal but areas of competence are assigned to each founder/employee (e.g. marketing, informational architecture, product design)</td>
</tr>
<tr>
<td><strong>Decision-making, level of centralization</strong></td>
<td>“If we have to make a decision we just discuss it and make a decision”: very democratic decision-making</td>
</tr>
<tr>
<td><strong>Innovation strategy</strong></td>
<td>Try to offer innovative ways of knowledge management for creative professional meeting a “tacit” client need</td>
</tr>
</tbody>
</table>
Appendix 9: Start-up characteristics of start-up A7.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interviewee</strong></td>
<td>Graduate Business Engineer with a professional background in (project-based) consultancy and engineering business</td>
</tr>
<tr>
<td><strong>Age of start-up</strong></td>
<td>2 years</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>Six people: one CEO, two founders responsible for sales, three developers</td>
</tr>
<tr>
<td><strong>Business idea</strong></td>
<td>Development of a queue management software that allows users to take a waiting number online to reduce waiting time in queues.</td>
</tr>
<tr>
<td><strong>Entrepreneurial opportunity</strong></td>
<td>Constructed by entrepreneur using a discovery process: one co-founder experienced difficulties while staying in a queue to pay his bills, then shared his problem with another founder and after analysis they decided to develop the idea</td>
</tr>
<tr>
<td><strong>Business model stage</strong></td>
<td>Business model still under development: product is realised but founders are still looking for financial viability; The founders have external funding and clients but did not reach the breakeven point yet, though state to be close.</td>
</tr>
<tr>
<td><strong>Organisational structure</strong></td>
<td>Horizontal and simple organisational structure divided into sales and software development</td>
</tr>
<tr>
<td><strong>Decision-making, level of centralization</strong></td>
<td>Decision making style depends on the decision type; technical decision are taken by CEO and development team and sales decisions by the two founders being responsible for that area</td>
</tr>
<tr>
<td><strong>Innovation strategy</strong></td>
<td>Fixing “real” societal problems with latest software technologies since there has not yet been a solution in terms of an online based tool to cut queueing time.</td>
</tr>
</tbody>
</table>
**Appendix 10: Grounded theory analysis.**

<table>
<thead>
<tr>
<th>First level concepts</th>
<th>Second-order themes</th>
<th>Aggregated dimensions</th>
</tr>
</thead>
</table>
| • Opportunity construction process  
  • Personal portfolio of entrepreneurial opportunities | Entrepreneurial opportunity construction | |
| • Start-up as a project  
  • External pressure  
  • Time-bound perspective  
  • Transition | Start-up self-identification as a temporary organisation | |
| • Start-up as a company  
  • Characteristics of the permanent organisation | Start-up transition to permanent organisation | |
| • Vision & Strategy  
  • Project as means to realize the entrepreneurial strategy | Entrepreneurial strategy making | |
| • Start-up as a sequence of projects | Strategy realization through sequence project approach | |
| • Project as a way of delivering and structuring internally  
  • Projects as tools versus flow of tasks | Strategy realization through Multi-project approach | |
| • Agility  
  • Flexibility | Dynamic capabilities | |
| • Internal efficiency by projects  
  • Projects support to deliver quality of the final product  
  • Projects provide internal focus by clear goal setting and structure  
  • Agile methodology  
  • Lean start-up methodology | Operational capabilities | |

*External project-based view*  
*Internal project-based view*  
*Start-up capabilities*
Appendix 11: Detailed grounded theory analysis with quotations.

<table>
<thead>
<tr>
<th>First-order concepts</th>
<th>Examples of Interviewees’ words</th>
<th>Second order themes</th>
<th>Core concepts</th>
</tr>
</thead>
</table>
| **Opportunity construction process** | When we first thought about doing something in the very beginning we discussed many many things. (...) At that point it was just brainstorming. And once we got that the idea we have is something good we just started to work on it. But it was no structure, no responsibility either, if you had the time you did something, if you didn’t, you didn’t. So once it came to a stage where we realised and we decided to commit ourselves to the project, then it already became a project. From day 1 where we decided to really work on it the entire thing was a project.  

**In X (country) there are not so many opportunities so you keep and develop the one you have.**  

I couldn’t find specific tool to store all the things...so we started to develop our idea. | **Entrepren- eurial opportunity construction** | **External project-based view** |
| **Personal portfolio of entrepren-eurial opportunities** | I had a number of different projects that I was working on. So I made a conscious choice that I would go fully into this by the beginning of this year.  

**As an entrepreneur I had several projects I was working on. (...) And the creation of X at the early stage was a project.**  

Then there is a decision to turn it into a real project. In my case that was investing money into a logo and then setting up the company. (...) So this is kind of the conversion from the idea to the project. | | |
| **Start-up as a project** | **In my opinion, a company is a project. It’s just one project that ends, I treat the company as a project: I try to set goals, I try to plan ahead where I want to be at in a certain time, how much money I need, how many resources.**  

**Project is something with a very specific goal,** and looking from this perspective X (start-up name) is definitely a project for me. | **Start-up self-identification as a temporary organisation** | |
<table>
<thead>
<tr>
<th><strong>First-order concepts</strong></th>
<th><strong>Examples of Interviewees’ words</strong></th>
<th><strong>Second order themes</strong></th>
<th><strong>Core concepts</strong></th>
</tr>
</thead>
</table>
| **External pressure**    | *We are doing technical project, company. I personally prefer to call it company. (...) If you call it project you already agreed to finish it if you get better opportunities or something.*  
  *First of all, when it was just X (co-founder) and I, the whole start-up was the project but now of course it is our project, it is our baby.*  
  *But we have to balance what the clients want and what the user want and what we want to be in 1 year or 2 years.*  
  *I guess it (pressure) has to do with three elements: legislation, (...) customers want it, we know they wait for it, (...) and potential competition.*  
  *Right now we are bootstrapping. When you are bootstrapping and you have a family, you need money. So you have to make the business work. This is the main pressure for me now.*  
  *In 2 years perspective, I want all founders to make money out of the projects. As any investor, I want 10 times multiplication of the investments we have made.*  
  *Our investors understand that we need time to develop. I hope they are long-term oriented. If they are not satisfied with our volumes or anything they can change.* | | |
| **Time-bound perspective** | *So I treat it (the start-up) as a project but I hope it can be longer...I do have a vision of the final product but I keep in mind that it is no longer than 6 months from the current moment.*  
  *We try to set priorities every day because we want to get to market as quick as possible....*  
  *We are working with technology so we cannot secure our position. So we try to be as quick as possible.*  
  *Exit strategy (selling) is a long-term and not really motivating scenario for us. (...) I try not to* | | |
<table>
<thead>
<tr>
<th>First-order concepts</th>
<th>Examples of Interviewees’ words</th>
<th>Second order themes</th>
<th>Core concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>focus on exit strategy and to build my company.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>(about strategy)</em> 10 years for us is too far. Even 1 year is quite far.*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I don’t see the final point of this company, I see potential exits at different stages. I don’t think it makes sense to plan too far ahead. I think of half a year - one year ahead.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>I try to set milestones where I evaluate if I should proceed with the project. It’s like “gates” where I re-evaluate the business.</td>
<td></td>
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</tr>
<tr>
<td><strong>Transition</strong></td>
<td>Initially it’s idea, you try to get some support, feedback from customers and peers, then a prototype. <em>(...) Then to get sufficient number of users and transactions and then the next stage is external funding.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>So I do project to create product, which will last longer.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>We divide our project by milestones but in the end of our project we see business.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Start-up as a company</strong></td>
<td>I wouldn’t say it (the start-up) is exactly only a project. Because project has a feeling of something that is going to finish. But when you talk about the company you want that to be independent and has growth and, basically, indefinite. And I want it for our start-up.</td>
<td></td>
<td><strong>Start-up transition to permanent organisation</strong></td>
</tr>
<tr>
<td></td>
<td>Actually, project, I think, it’s a company...the same. Sometimes people call it project- *(...) But I prefer to call it company. Because it’s also about time: company can live forever and project will probably end someday. <em>(...) For us it’s significant difference to invest our time and money in project or into a company.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First-order concepts</td>
<td>Examples of Interviewees’ words</td>
<td>Second order themes</td>
<td>Core concepts</td>
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<tr>
<td>When dealing with investors, you always want to establish trust with them by telling your story but if you refer to a start-up as a project, it seems that you will finish some day or when you tell it’s your company, your team and it will last longer so it’s better to associate yourself with company, not just project.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>I see this start-up as a company, of course, because I want this start-up to be a company in some day and so I have to see it that way.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business for us starts when we stabilize our internal changes having more evolutionary development and we have constant income. At this stage we will be more concerned about making scalable processes. The word “maturity” is probably the best representation of what I mean.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exit strategy (selling) is a long-term and not really motivating scenario for us. (...) I try not to focus on exit strategy and to build my company.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I then look at the distinction between company, it is materially different from being a project. It is rather the superset of things. There are some very practical things like a company is a legal entity with legal obligations. There is a bank account, there is laws (...) notable things can happen at the same time, for example you have staff, you have customer relationships, you have many things that are not projects that take place.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In communication, in everything that is formal, we are not a project. For externals we always are a company.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First-order concepts</td>
<td>Examples of Interviewees’ words</td>
<td>Second order themes</td>
<td>Core concepts</td>
</tr>
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<td>---------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<td>---------------</td>
</tr>
<tr>
<td>Vision &amp; Strategy</td>
<td>In 5 years we want to have big clients that have around 100-200 offices.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I want to have a qualitative project with long-term customer loyalty, not like fireworks, which lose its audience as fast as they got it.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>And our vision in the long-term is to turn it into self-learning software.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>It fits with business strategy which is sort of a long term vision, mission with specific circumstances.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>We do long-term decisions: everything that we do we reconcile with our long-term vision, in our case it’s 10 years plus. (...) Each of these decisions develops into a project.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Projects as means to realize the entrepreneurial strategy</td>
<td>Projects are tools used to realize strategic goals. We take the ideas that fit to our long-term strategy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>So some of these partial strategic directions and the sort of practical application of strategy then defines kind of how your project needs to be created.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start-up as a sequence of projects</td>
<td>I need a first phase of that project which is basically validating the project. (...) then I moved to the next phase which is that I need to build a prototype which is then the next project. So then there is a next project which is that I need to fill a team…(...)...So there was no master project in x (name of the start-up) but there was a series of projects that would lead to it.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A lot of corporations use phases for the internal deployment of systems, and for me I prefer projects because it implies a much more concrete and tangible set of actions. It also implies that there is some accountability and some sort of punishment or reward if it is done or not done properly. All the software development is a project. It’s one entire project but we develop the software in iterative cycles.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First-order concepts</td>
<td>Examples of Interviewees’ words</td>
<td>Second order themes</td>
<td>Core concepts</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<td>----------------</td>
</tr>
<tr>
<td>Project as a way of delivering and structuring internally</td>
<td><em>We have internal and external projects. External ones are those when we start cooperation with someone. Internal projects are “global features” which bring value to the main project.</em>&lt;br&gt;&lt;br&gt;<em>We have 3 main project types: development, finance, recruitment. Within each we have several subprojects. One project in our case consists of many many tickets.</em>&lt;br&gt;&lt;br&gt;New ideas and new features become a project. We divide the developer projects, the commercial projects and clients. Projects for me is a way of componentizing the business. I need to break the business up into discrete parts that fit together.&lt;br&gt;&lt;br&gt;It’s called “project tunnel”: first ideas are pitched, check strategic alignment, then evaluate the idea in terms of resources, time, budget, interdependencies, assign deadline and execute.</td>
<td>Strategy realization through Multi-project approach</td>
<td></td>
</tr>
<tr>
<td>Project as tools versus flow of tasks</td>
<td><em>I do structure into projects. Maybe about 70% of the work go into a project and 30% don’t.</em>&lt;br&gt;&lt;br&gt;<em>We don’t divide our goal into projects. We call it tasks. It comes from life. We just divided it as everyday activity. So we just do it every day.</em>&lt;br&gt;&lt;br&gt;There are processes that are ongoing or tasks that are too short to be put into a project.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agility</td>
<td><em>We try to be as agile as possible. We see it as the biggest competitive advantage compared to competitors: we use agile to create vision of our project.</em></td>
<td>Dynamic capabilities</td>
<td>Start-up capabilities</td>
</tr>
<tr>
<td>Flexibility</td>
<td><em>In our experience the highest value we have in comparison to our competitors is flexibility and speed. Within the structure (project, ticket, sprint) we are totally flexible.</em>&lt;br&gt;&lt;br&gt;The main idea, I think, is to be flexible, and do these changes in your project, in your approach, because business changes, economic changes and changes become now really really fast.*&lt;br&gt;&lt;br&gt;Of course being very flexible because that was one of the good things of being a start-up because we try to be the most flexible we can.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First-order concepts</td>
<td>Examples of Interviewees’ words</td>
<td>Second order themes</td>
<td>Core concepts</td>
</tr>
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</tr>
<tr>
<td><strong>Internal efficiency by projects</strong></td>
<td>Treating what I do internally as projects reduces risks, it reduces the error rate, it maximizes the efficient usage of resources and time, it adds clarity to roles and responsibilities. (...) So it is faster to bring people on board. (...) And then I can work out what is the best and most cost effective quality way of delivering that piece.</td>
<td>Operational capabilities</td>
<td></td>
</tr>
<tr>
<td><strong>Projects support to deliver quality of the final product</strong></td>
<td>And you deliver better quality as the outcome so you should deliver a better quality product provided that your project was clearly defined and that you have a strategic focus. If something is changing in the market and we need to be flexible so we have to have the sort of endurance to provide quality.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Projects provide internal focus by clear goal-setting and structure</strong></td>
<td>Sometimes it happens that we consider tasks in our daily business as projects by setting goals. I think that project is a certain state where you can clearly define a goal, probably it is not the final goal but a certain goal to complete. (Structuring by projects) certainly is helping and forcing me to focus. It’s giving me a structure to remember all the things that need to get done because there is many different pieces and when you forget a piece it may cost you like 2 months in the end.</td>
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<tr>
<td><strong>Agile methodology</strong></td>
<td>We are using Scrum and Agile. Everything that needs to be done is divided up into sprints. We treat sprints as a deliverable within the project.</td>
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<tr>
<td><strong>Lean start-up methodology</strong></td>
<td>Because there is a discipline of minimal viable product (MVP), it’s a lean start-up so we came up with MVP light.</td>
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