Motivating Entrepreneurs Towards The "New Industrial Revolution"

A Multiple Case Study Of Sustainability-Driven Entrepreneurial And Institutional Motivations in Finland

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Summary

Sustainability and sustainable development are concerned as major topics in the current business and academic context. Although business entities are seen as a cause of the problem, they are similarly seen as a solution helping the world to survive from this enormous challenge. The current academic literature underlines the role of sustainable entrepreneurship as a decisive force, which helps to transform the profit-oriented paradigm into the “new industrial revolution”. In this context the motivating factors and their interactions behind the sustainable entrepreneurship are further unclear, which has lead to the following research questions:

1. What entrepreneurial motivations in Finland affect entrepreneur’s decision to form and exploit sustainability-oriented opportunities?
2. What institutional motivations in Finland affect entrepreneur’s decision to form and exploit sustainability-oriented opportunities?
3. What are the interactions between entrepreneurial and institutional motivations affecting entrepreneur’s decision to form and exploit sustainability-oriented opportunities in Finland?

The theoretical framework was constructed with a strong emphasis on entrepreneurial processes and opportunity theories. The main deviation from the conventional entrepreneurship towards the sustainable entrepreneurship was drawn through the wider nature of value creation in terms of triple bottom line approach. In addition the main motivational concepts were mirrored through the entrepreneurial motivations literature and the institutional theory, which provided effective theoretical lenses for the purpose of the empirical study.

The empirical study was conducted in Finland as a multiple case study with an exploratory research approach. The data was collected from sustainability-driven entrepreneurs and experts who had personal knowledge related to the phenomenon. More practical data collection methods were semi-structured interviews and questionnaires concerning entrepreneurial motivations. These selected methodological choices enabled accumulation of a rich set of data and provided further possibilities for fruitful data analysis.

The study indicated that human motivations related to the conventional entrepreneurship research are feasible in enhancing sustainable entrepreneurship. In the similar vein entrepreneurial motivations concerning self-realization, opportunities, personal values and prior experience have motivational effects on the sustainability-driven entrepreneur. Institutional motivations towards sustainable entrepreneurship are influential for the sustainability-oriented opportunity process. The analysis indicated that for example governmental incentives, consumption norms and social networks are motivating factors for sustainability-driven entrepreneurs. Finally the study indicated that both motivational sources have co-evolutative interactions throughout the process, but the intensity of these interactions similarly varied.
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1 Introduction

The first chapter begins by covering practical and theoretical problems in the current global environment aiming to motivate the choice of the subject. This illustration highlights the need for sustainability-oriented research especially in the entrepreneurship context. The problem background discusses about the current and future state of the research, while simultaneously reveals research gaps present. Latter part of the chapter describes the research questions, the purpose of the study, key concepts related to the thesis as well as knowledge, societal and practical contributions targeted in this study. In addition, the disposition of the study is presented.

1.1 Choice of Subject

The widely accepted definition of sustainable development was introduced in 1987, when the Brundtland Report was published and defined sustainable development as “development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs” (WCED, 1987). Despite this common ground on sustainable development, the extent to which this interest has been transformed into fundamental structural changes remains problematic and questionable (McCool & Stankey, 2004, p. 294). In this context we perceive the business world to be similarly a cause and a solution for the problem on-hand, whereas academics are summoned to contribute to the sustainable development inquiries through theory development and knowledge accumulation. Although the ultimate goal is shared, means to achieve the desired effect are dependent on the successful co-operation between different entities of practitioners, academics as well as governmental instances.

A quote from Pope Francis in United Nations Climate Conference 2015 in Paris further highlights the importance of these co-operative actions: “Every year the problems are getting worse. We are at the limits. If I may use a strong word I would say that we are at the limits of suicide” (Pullella, 2015). Despite the negative development, the current business paradigm and institutional structures lean towards profitability and economic wealth that is achieved by exploiting Earth’s resources beyond the sustainable levels (Stead & Stead, 1994). Statistics are showing similar facts when considering global energy consumption. According to International Energy Agency the global energy consumption has increased tremendously from 4667 Mtoe to 9301 Mtoe between 1973 and 2013 (International Energy Agency [IEA], 2015, p. 30). US Energy Information Administration confirms this analysis by predicting that the world energy consumption will increase 56% by 2040, from where major share comes from non-OECD countries (US Energy Information Administration [EIA], 2013). Increase in energy consumption will lead to a higher carbon dioxide levels and global warming, which is considered to be the main threat for the global environment (Soytas & Sari, 2009, p. 1667).

Success or failure in the sustainable development cannot be considered only based on improving environmental performance globally (Hopwood et al., 2005, p. 39). In this context, social objectives are equally as important as environmental and economic outcomes (Hall et al., 2010, p. 440). Social dimension is commonly disregarded, mainly because of difficulties in defining it in research and practical contexts (Littig & Griessler, 2005). Littig & Griessler (2005, p. 73) defined employment as a contributing factor in social sustainability, while it similarly develop individual’s income, housing conditions, social networks and etc. According to International Labour Office
The current opportunities and challenges in the sustainable development can be portrayed through Finland. The collapse of the Finnish success story in a form of Nokia mobile phone business in the 21st century and the decrease in industrial exports created an urgent need for new entrepreneurial activity (Autio, 2009; The Economist, 2012). According to the Global Entrepreneurship Monitor (GEM, 2016) the quest has failed, while the entrepreneurial intentions and early-stage entrepreneurial activities are well below Europe’s average levels. Together with the global economic crisis, the consequences of negative development have created similarly significant challenges for the social sustainability through increased inequality and income gaps (Sitra, 2016). Consequently Finnish Government declared that the new growth is urgently needed and the aim can be achieved by enhancing environmental innovations and entrepreneurship (Finnish Government, 2015). Through the desired positive development and growth, Finland can similarly ensure the social welfare and create more employment opportunities in the long run (Finnish Government, 2015). According to the United Nations report (UN, 2013) similar challenges and needs for actions cannot be considered only as a Finland specific phenomenon, which highlights the relevance of the study and applicability of its contributions in a more global context. Similarly we perceive that Finland provides a transparent context for conducting the study and high accessibility to the relevant data, which together with the recent focus on sustainability and entrepreneurship further enhances the choice of Finland as the suitable research context.
1.2 Problem Background and Knowledge Gaps

Central premises in the conventional entrepreneurship research are most commonly constructed through the nexus of lucrative opportunities and enterprising individuals (Venkataraman, 1997, p. 121). Individual entrepreneurs are alert to information regarding market imperfections, which enables them to discover profitable opportunities (Kirzner, 1973, p. 68-70; Shane & Venkataraman, 2000, p. 220). The more recent theoretical development sees opportunities to be a more subjective in their nature and accordingly requires creative actions from entrepreneurs (Alvarez & Barney, 2007). Discovered or created opportunities are evaluated in a cyclical process, which finally reveals the opportunity value compared to the opportunity cost and leads to an exploitation decision (Shane & Venkataraman, 2000, p. 222; Short et al., 2009, p. 55). According to Landström et al. (2012, p. 1155) the exploitation is driven through new innovations or new combinations of resources. Shane & Venkataraman (2000, p. 224) defined a new firm, an existing firm or a hybrid form of these two as the more practical modes of exploitation. According to Alvarez et al. (2013, p. 303) these entrepreneurial processes correspond to the concept of forming and exploitation of opportunities, which leads entrepreneurs to exploit natural and social resources in order to create the desired monetary value (Parrish, 2010, p. 511). As the global struggle related to the sustainability continues, academics are bringing up questions, if entrepreneurs can change the paradigm and move from profit-oriented outcomes to cover more sustainable objectives (Hall et al., 2010, p. 439; Thompson et al., 2011, p. 202). This phenomenon of sustainable development in entrepreneurship context has lead to a new research area called sustainable entrepreneurship (Thompson et al., 2011, p. 202).

The concept of sustainable entrepreneurship has been used in a research context since the millennium (Lumpkin & Katz, 2011, p. 13) and most commonly recognized to form a sub-field in the entrepreneurship research (Kuckertz & Wagner, 2010, p. 525). Most simply stated sustainable entrepreneurship combines words entrepreneurship and sustainability (Schaltegger & Wagner, 2011, p. 226). Until today, the sustainable entrepreneurship research has been sparse and scattered within multiple research streams (Hall et al., 2010, p. 440; Thompson et al., 2011). The most advanced knowledge concerning sustainability and organizations has been created through Corporate Social Responsibility (CSR) initiatives exploited through operations of multinational enterprises, but the emphasis is currently moving towards sustainable entrepreneurship and entrepreneurial firms (Cohen & Winn, 2007, p. 35; Hall et al., 2010, p. 441). Hockerts & Wüstenhagen (2010) claimed that entrepreneurial firms called “Emerging Davids” engage foremost to sustainable development, followed by market incumbents called “Greening Goliaths”. According to York & Venkataraman (2010) sustainability is driven through new firms, while sustainability-oriented opportunities are more uncertain and market incumbents see uncertainty as an undesired condition. Despite the recognized importance of entrepreneurial firms in sustainable entrepreneurship, the empirical research remains to be scarce and calls for further empirical insights (Hall et al., 2010, p. 445).

Due to the novelty of the research area, the definition of sustainable entrepreneurship remains ambiguous and hinders the further knowledge accumulation (Shepherd & Patzelt, 2011; Thompson et al., 2011). In order to avoid this we define sustainable entrepreneurship as the discovery, creation, evaluation, and exploitation of opportunities to create future goods and services that are consistent with sustainable development.
goals; and the set of individuals, who discover, create, evaluate and exploit them (Pacheco et al., 2010, p. 471; Shane & Venkataraman, 2000, p. 218). From the opportunity perspective, Pacheco et al. (2010, p. 477) argued strongly in favor of including opportunity creation theory into the sustainable entrepreneurship research. Still today the major emphasis on the research area is consistent with the opportunity discovery theory, but there is a need to expand the empirical field to include theoretically more interesting and empirically more meaningful opportunity creation theory into the context (Pacheco et al., 2010, p. 477). Opportunity creation generates structures that enable further discovery of sustainability-oriented opportunities and extends current institutional barriers, which improves possibilities to create more sustainable future through entrepreneurial actions (Pacheco et al., 2010, p. 465).

Sustainable development goals are corresponding to the triple bottom line approach, which balances firm objectives in terms of people, planet and profit (Elkington, 1999, p. 70). Although the triple bottom line concept is widely accepted, Gibbs (2006, p. 65) argued that by only stating desired outcomes in a research setting has created a “black box” phenomenon. It refers to settings, where economic, social and environmental aims are simply stated without any further logical meaning behind it (Gibbs, 2006, p. 65). Accordingly, Parrish (2010, p. 521) encouraged future studies to open up the “black box”, whereas the current research development has been slow in contributing to this inquiry. This might be due to the fact that the created social value is hard to measure and identify causing advanced number of studies to contribute more to the knowledge accumulation from the double bottom line perspective (Belz & Binder, 2015, p. 2; Zahra et al., 2009, p. 521-522). Double bottom line refers to approaches that either concerns profit-social or profit-environmental development (Cohen & Winn, 2007; Dean & McMullen, 2007; Meek et al., 2010; Zahra et al., 2009), failing to simultaneously incorporate people, planet and profit measurements into the research setting. In addition, the problem lies on insufficient use of social entrepreneurship literature, which seeks to integrate the opportunity view into the social value creation (Dacin et al., 2010) and from the vague assumption that environmental entrepreneurship creates social value in the long run (Meek et al., 2010, p. 499). In this context, the gap could be filled by incorporating social bricoleurs, constructionists and engineers, which present typologies of social entrepreneurship (Zahra et al., 2009, p. 523), into the future research settings related to sustainable entrepreneurship. Different forms vary in their contextual value creation and embeddedness ranging from local context to a more global one (Smith & Stevens, 2010, p. 585).

By examining sustainable entrepreneurship only through lucrative opportunities and value creation cannot be considered to cover all aspects of the phenomenon. Similar to the conventional entrepreneurship approach, sustainable entrepreneurship is constructed through the nexus of lucrative opportunities and enterprising individuals (Venkataraman, 1997, p. 121). Cyert & March (1963, p. 9, cited in Zahra et al., 2009, p. 521) highlighted the existence of individual motivations related to the entrepreneurship by stating: “Entrepreneurs, like anyone else, have a host of personal motives”. These personal motivations in entrepreneurship context are commonly linked with profit and growth aspirations (Carland et al., 1984, p. 358), but the trend is developing towards covering wider perspective of entrepreneurial motivations going beyond these motivations (Parrish, 2010, p. 521). The focus is still narrow and for example Cohen et al. (2008, p. 117) called for studies that go beyond profit-oriented motivations. Patzelt & Shepherd (2011) have contributed to this inquiry by defining altruism, individual’s
motivation to improve welfare for another person, to be a motivational driver when recognizing “third-person opportunities”. By excluding first-person perspective, authors’ contribution is bounded in order to reveal wider patterns in entrepreneurial behavior (Patzelt & Shepherd, 2011, p. 634).

On the other hand, conventional entrepreneurship research related to entrepreneurial motivations is more mature (Shane et al., 2003, p. 263). Drawn from several quantitative and qualitative studies, Shane et al. (2003) reviewed entrepreneurial motivations influencing various aspects in the entrepreneurial process. Although sociologists have argued strongly in favor of trait-based research, the current research is mainly concentrating on the suitability of identified motivations in static perspective related to the conventional entrepreneurship (Shane et al., 2003, p. 276). Shepherd & Patzelt (2011, p. 156) argued that this human motivation approach opens up opportunities for future research to widen up perspective and test the suitability of entrepreneurial motivations in the sustainable entrepreneurship context.

Locke & Baum (2007, p. 96) argued that entrepreneurship is more than a result of a human action, while institutional factors (e.g. government regulations and social norms) are affecting to entrepreneur’s motivation. In the sustainable entrepreneurship context previous studies are showing contradicting results related to either positive or negative influence of institutions (Meek et al., 2010; Pacheco et al., 2010). Meek et al. (2010) found that sustainability favorable social norms in a specific institutional setting are encouraging entrepreneurial activity in the U.S. solar energy sector. On the other hand, Pacheco et al. (2010) argued that existing institutions are restricting sustainability-driven entrepreneurial activities and entrepreneurs overcome this barrier by transforming institutions through created opportunities. In this context, the institutional theory has been acknowledged to be a suitable approach when studying business related phenomena (Scott, 2008). Scott (2008, p. 50) divided institutional forces into three pillars of regulative, normative and cultural-cognitive respectively. More detailed, Scott (2008, p. 48) provided the following definition: “Institutions are comprised of regulative, normative and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life.” The sustainable entrepreneurship research has only grasped the role of institutional motivations, although for example Shepherd & Patzelt (2011) stressed the feasibility of the institutional theory in the sustainability context considering both economic and non-economic benefits. Similarly, Berrone et al. (2010) have highlighted the usefulness of the institutional theory when studying motivational patterns that go beyond economic goals only.

As previous studies have acknowledged that entrepreneurial and institutional motivations have impact on conventional and sustainable entrepreneurship context (Hall et al., 2010, p. 444), these motivational sources cannot be considered to function in a “bubble” (Shane et al., 2003, p. 258). For example Walley & Taylor (2002) defined in the ecopreneurship context that internal motivations and structural influences have interactional nature and it needs to be taken into account in order to fully understand the phenomenon. Similarly Shane et al. (2003, p. 275) argued that in the conventional entrepreneurship context the environmental conditions (e.g. institutional structures) have interaction with entrepreneurial motivations. Furthermore the interactional nature cannot be considered as a one-way process while the sustainability-oriented opportunity process derived through entrepreneurs have effects on institutional structures and the
motivational nature of these institutions towards the entrepreneur (Pacheco et al., 2010). Despite the identified interactive nature of internal and external motivations, previous studies in the sustainable entrepreneurship context have not addressed these interactive processes between different motivational sources (Hall et al., 2010, p. 446).

The current development and emphasis on sustainability have created a considerable amount of research inquiries and revealed several gaps in the research area (Thompson et al., 2011). International Journal of Entrepreneurial Behavior & Research came to a similar conclusion by releasing a call for academic articles related to the sustainable entrepreneurship that would generate more advanced knowledge in a form of motivational factors (Emerald Journals 2015). Similarly, Hockerts & Wüstenhagen (2010, p. 489) encouraged future research to study sustainable entrepreneurship through case studies, while Shepherd & Patzelt (2011, p. 155) argued that there is a need to study entrepreneur’s motivation towards exploiting sustainability-oriented opportunities. Finally, Hall et al (2010, p. 440) requested research about the role of external actors, who influence to the incidence of sustainable entrepreneurship.

To our understanding and based on the discussion above, previous studies have not explored individual motivations accumulating from entrepreneurial as well as from institutional sources and what are the interactions between these motivational factors. In addition, prior research has concentrated on studying phenomenon through double bottom line approach, whereas the integration of social dimension into the research setting has been weak (Belz & Binder, 2015, p. 2; Zahra et al., 2009, p. 521-522). The gap could be filled by integrating social bricoleurs, social constructionists and social engineers, which are referred as typologies of social entrepreneurship (Zahra et al., 2009, p. 523) into the research setting in order to generate new knowledge corresponding all dimension of sustainability and sustainable entrepreneurship. Therefore research area consist “a white spot” on the knowledge map that requires further knowledge development (Sandberg & Alvesson, 2011, p. 30), which has led us to the following research questions.

1.3 Research Questions

Based on the discussed problem background and knowledge gaps in the field of sustainable entrepreneurship, the following research questions are exploring the motivational factors from the entrepreneurial and institutional sources:

(1) What entrepreneurial motivations in Finland affect entrepreneur’s decision to form and exploit sustainability-oriented opportunities?

(2) What institutional motivations in Finland affect entrepreneur’s decision to form and exploit sustainability-oriented opportunities?

Research questions (1) and (2) aim to explore motivational factors in the sustainable entrepreneurship context studied through the sustainability-oriented opportunity process lens. In addition the aim is to explore patterns in interactions between the entrepreneurial and institutional motivations leading to the entrepreneur’s decision to form and exploit sustainability-oriented opportunities. Similarly previous studies have highlighted the role of motivational interactions in several contexts, which further enhance the need to synchronize the wider perspective into the study. Accordingly the
third research question aims to explore motivational interactions leading to the sustainability-oriented opportunity process:

(3) What are the interactions between entrepreneurial and institutional motivations affecting entrepreneur’s decision to form and exploit sustainability-oriented opportunities in Finland?

1.4 Purpose

The main purpose of the study is to explore entrepreneurial and institutional motivations as well as their interactions, which affect entrepreneur’s decision to form and exploit sustainability-oriented opportunities. We are conducting an exploratory study, where the purpose is to develop a better understanding of the phenomenon and interactions between different motivational structures. As a result we construct a framework to illustrate the entrepreneurial and institutional motivational factors as well as their interactions. The framework of motivations in the sustainable entrepreneurship aims to be an applicable tool that can be utilized in different contexts. By conducting the study, we are able to produce viable knowledge for the use of future research, where the study could be referred as a foundation for the further development of hypotheses and propositions tested in different research settings.

As a sub-purpose, we aim to identify motivational patterns as well as to test existing knowledge in order to generate a better understanding related to the phenomenon in Finland. Similarly, the intent is to give theoretical, practical and social contributions concerning the sustainable entrepreneurship. Finally, the study aims to produce a better understanding of the phenomenon in order to improve public policy implications favoring sustainable entrepreneurship as well as to enhance the collaboration between private and public sector.

1.5 Knowledge Contributions to Existing Research

1. Previous studies have not been examined entrepreneur’s motivational drivers and interactions leading to a formation and exploitation of sustainability-oriented opportunities, which has created a research gap in the knowledge map (Sandberg & Alvesson, 2011, p. 30). We are aiming to close this gap by constructing a framework, which similarly is the main knowledge contribution generated from the study.

2. Majority of the current knowledge covers sustainability through double bottom line approach, where the linkage to social development can be considered to be weak or non-existent (Belz & Binder, 2015, p. 2; Zahra et al., 2009, p. 521-522). In this context, we are aiming to contribute to the current knowledge by adopting typologies of social entrepreneurship into the research setting in order to strengthen the sustainability view through the triple bottom line approach.

3. According to Pacheco et al. (2010), opportunity creation theory should be seen vital for the further development of the research area and as a driving force from where the future opportunities can be discovered. In this study, we contribute to the inquiry by adopting opportunity creation theory into the study as it similarly has effects on the current institutional structures, which restrict and/or support entrepreneurial actions.
4. The current development in the sustainable entrepreneurship research remains to be scarce and research inquiries call for further empirical contributions (e.g. Hall et al., 2010; Thompson et al., 2011). We aim to answer to this call by conducting an empirical research in Finland’s institutional setting.

5. Despite the current development in the literature, the ambiguous definition of sustainable entrepreneurship hinders the knowledge accumulation (Shepherd & Patzelt, 2011; Thompson et al., 2011). In our study, different assumptions accumulating from previous studies are aligned in order to generate a more comprehensive view concerning the phenomenon.

1.6 Social and Practical Contributions

1. From the more practical side, the study provides new knowledge regarding what are the motivating factors and their interactions in the sustainable entrepreneurship context. Thus, entrepreneurs are able to gain a better understanding how various motivational factors have effects individually and combined together to their decision-making in different phases of the entrepreneurial process.

2. Sustainable development through entrepreneurship has a huge potential to create social contributions locally as well as globally. By conducting the study, the results could be used to enhance the social development through sustainable entrepreneurship processes.

3. Public policies are playing a significant role in the sustainable development. We aim to provide knowledge that would assist the future institutional decision-making to consider more motivationally encouraging institutional structures rather than restricting entrepreneur’s desire to form and exploit sustainability-oriented opportunities.

1.7 Key Concepts

Entrepreneurial Motivation - “Motivation that is directed towards entrepreneurial goals (e.g., goals that involve the recognition and exploitation of business opportunities)” (Locke & Baum, 2007, p. 93).

Entrepreneurial Opportunity - “Situations in which new goods, services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends, or means-ends relationships” (Eckhardt & Shane, 2003, p. 336).

Entrepreneurship - The processes of discovery, creation, evaluation and exploitation of opportunities to create future goods and services; and the set of individuals, who discover, create, evaluate and exploit them (Chiles et al., 2007, p. 473; Shane & Venkataraman, 2000, p. 218).

Institutional Theory - “Institutions are comprised of regulative, normative and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life” (Scott, 2008, p. 48).
**Sustainable Entrepreneurship** - The discovery, creation, evaluation, and exploitation of opportunities to create future goods and services that is consistent with sustainable development goals; and the set of individuals, who discover, create, evaluate and exploit them (Pacheco et al., 2010, p. 471; Shane & Venkataraman, 2000, p. 218).

**Sustainable Development** - “Development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs” (WCED, 1987).


**Sustainability-oriented Opportunity** - “Situations in which new goods, services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends, or means-ends relationships (Eckhardt & Shane, 2003, p. 336), and which simultaneously create value from an economic, social and ecological perspective” (Schlange, 2009, p. 18).

**Triple Bottom Line (3BL)** - “The simultaneous pursuit of economic prosperity, environmental quality and social equity” (Elkington, 1999, p. 397).

### 1.8 Disposition of the Study

**Chapter 1: Introduction** - The introductory chapter serves as a motivational discussion leading to a choice of a subject, while it similarly aims to reveal the current state of the sustainable entrepreneurship research and the existence of research gaps in the research area. Naturally this discussion leads to the formulated research questions and the purpose of the study, which are acting as the guiding instruments throughout the thesis. The latter part of the chapter summarizes the key concepts and various contributions to be made from different perspectives.

**Chapter 2: Theoretical Framework** - The theoretical framework chapter reviews the relevant literature related to the study as well as declare our perceptions about the phenomenon. The chapter begins with the literature about entrepreneurship and sustainability followed by the literature about social, environmental and sustainable entrepreneurship. Afterwards, we discuss two different sources of motivation: entrepreneurial and institutional. In the last part sustainability-driven entrepreneurial firms are defined and finally theoretical framework will be summarized.

**Chapter 3: Methodology** - The methodology chapter presents our philosophical standpoints in terms of ontology and epistemology followed by research approach and design. The more practical methodology concerning data collection methods, interview design and participant selection is similarly discussed. At the latter part of the chapter discussion concentrates on quality criteria’s, ethical considerations and data analyzing strategies.
Chapter 4: Empirical Findings - The empirical findings chapter concentrates on presenting the collected data by following the themes in the theoretical framework. In addition the chapter begins with the more detailed description of the interview process and our interpretations made during the process. Quotes from the interviews as well as visualizing tables have been added to this chapter in order to enhance readability as well as coherency.

Chapter 5: Analysis and Discussion - The analysis and discussion chapter concentrates on analyzing empirical findings together with the theoretical framework. During the analysis differences and similarities between the empirical data and existing literature are further discussed enabling us to finally conclude our findings.

Chapter 6: Conclusions - The final chapter aims to conclude findings, which leads us to answer our research questions and fulfill the study purpose. In addition contributions from the knowledge, practical and social side will be discussed together with study limitations and suggestions for the future research.
2 Theoretical Framework

The theoretical framework chapter aims to review the relevant literature concerning the study. Similarly, the aim is to consistently construct the theoretical framework, which guides the research and acts as a foundation for the further parts of the study. As the entrepreneurship literature is considered to be the fundamental source of sustainable entrepreneurship research, much emphasis has been dedicated to it in the first part of the framework chapter. In the middle part the aim is to review and clarify our perceptions on sustainability, sustainable development as well as to construct the sustainable entrepreneurship framework by adding literature from the social and environmental entrepreneurship. The last part of the theoretical framework chapter concentrates on entrepreneurial and institutional motivations relevant for conducting the study. Finally, the aim is to clarify our perceptions about sustainability-driven entrepreneurial firms, which are forming the primary data source. The end of the chapter summarizes the theoretical framework in a visualized form.

2.1 Entrepreneurship

To date, the literature regarding entrepreneurship has been evolved to cover individual-level actions all the way to the entrepreneurial behavior executed in the organizational level. In our opinion, entrepreneurship theory contributes not only to one specific research area rather it can be used to examine phenomena visible in various contexts. We perceive entrepreneurship to be a significant factor in the sustainable development, whereas especially perspectives related to opportunity processes could enhance the sustainable transformation towards the “new industrial revolution”. Similarly, sustainable entrepreneurship together with the social and environmental entrepreneurship is considered to form sub-fields of entrepreneurship research (e.g. Kuckertz & Wagner, 2010; Thompson, 2011), which highlights the suitability of entrepreneurship theories concerning sustainable development.

According to Venkataraman (1997, p. 132) entrepreneurship not only concerns exploitation of opportunities related to the monetary outcomes, but it similarly takes into account social contributions accumulating from the individual’s effort. We are putting much emphasis on our literature review to entrepreneurial processes especially to the current knowledge concerning entrepreneurial opportunities. Our approach to sustainable entrepreneurship follows the similar argumentation, which generates a credible foundation for our study as well as increases comparability with the mainstream studies in the sustainable entrepreneurship context.

2.1.1 Development of Entrepreneurship as a Research Field

Bruyat & Julien (2001, p. 166) stated already in the beginning of the millennium that entrepreneurship as a research field is in large extent formed. Although there are also opposite opinions, the research area has come a long way since it was firstly acknowledged. Cooper (2005, p. 21) reminded that entrepreneurship, as an academic field is still quite young, while the first course in entrepreneurship was given in the Harvard Business School in 1947. Although the academic field is still quite novel, Landström et al. (2012, p. 1155) highlighted that the function of entrepreneurship is as old as the first signs of exchanging and trading goods. Still, the phenomenon received
more practical and academic interest during the Middle Ages as a result of emerging economic markets (Landström et al., 2012, p. 1155).

The term entrepreneur was already used in the French language since the twelfth century (Carlsson et al., 2013, p. 916). The original word similarly derives from French and can be translated to mean, “taking the initiative to bridge” (Schaltegger, 2002, p. 46). Richard Cantillon, an Irish-born banker, has been recognized to be the first person that identified entrepreneurship with a more precise economic meaning in the society (Landström et al., 2012, p. 1155). Accordingly the variation between supply and demand enables to buy goods cheaply as well as to sell them at a higher price, which transferred the market system toward stability similarly setting the stage for the further development of equilibrium models (Carlsson et al., 2013, p. 916). In the similar sense, individuals who were alert and able to capitalize these opportunities were the first entrepreneurs cited in the literature (Carlsson et al., 2013, p. 916).

Prior moving to the entrepreneurial equilibrium models, for the purpose of the study one significant contribution from the research development can be drawn from the Knightian uncertainty model (Knight, 1921). We argue that the uncertainty is a key factor in the entrepreneurial process, especially during the opportunity exploitation phase. We perceive this to similarly have an impact on opportunity exploitation phase in the sustainable entrepreneurship context. In his highly acknowledged book Risk, Uncertainty and Profit, Knight (1921) separated an insurable risk and non-insurable uncertainty, where higher uncertainty related to change is corresponding to better possibilities for achieving profits. If the probability can be calculated the risk is lower and when the probability is unknown the degree of uncertainty increases, which generates higher likelihood of entrepreneurial action (Knight, 1921, p. 268). The work of Knight is still highly influential in the entrepreneurship context, especially related to the entrepreneurial decision-making (Alvarez & Barney, 2007; Landström et al., 2012, p. 1165).

The equilibrium assumptions were acting the main role in the 20th century research development and most of the entrepreneurship studies today are approaching phenomenon through seminal works from Schumpeter and Kirzner (Chiles et al., 2007, p. 468). Schumpeter argued that the economic growth through opportunities is not due to the capital accumulation, rather from new innovations or new combinations that lead into the market disequilibrium (Landström et al., 2012, p. 1155). Innovations can be defined to be multi-stage processes in where ideas are transformed into new/improved products, services or processes in order to advance, compete and differentiate successfully in marketplace (Baregheh, 2009, p. 1334). New combinations are driven through five cases: new goods, new methods of production, new markets, new supply sources or new organizations (Schumpeter, 1990, p. 106). This leads to a “creative destruction” and eventually to a market disequilibrium, which is further developed through the imitative actions by other entrepreneurs (Schumpeter, 1990).

Today, the most recognized Austrian School view by Israel Kirzner concentrates more on the entrepreneur and the results of the disequilibrium model rather than to the process of achieving it (Chiles et al., 2007, p. 471). According to Kirzner (1973, p. 68-70) individual entrepreneur is alert to information regarding market imperfections and through this is able to coordinate resources more effectively. Alertness enables discovery of opportunities and corrections related to the disequilibrium aiming to
transform the market back to the equilibrium state (Kirzner, 1973, p. 73), but the equilibrium cannot be never fully realized (Eckhardt & Shane, 2003, p. 336). Finally Ludwig Lachmann extended the entrepreneurship research to include entrepreneurial exploitation as a continuous recombinative process rather than an episodic process (Chiles et al., 2007, p. 473). This process enables entrepreneurial imagination, which constructs the foundation for the entrepreneurial opportunity creation and exploitation through recombination of resources (Chiles et al., 2007, p. 476). Thus the equilibrium is not a resting point, but it emphasizes continuous disequilibrating nature of entrepreneurship (Chiles et al., 2007, p. 477).

Simultaneously with the development of equilibrium models, behavioral scientists like David McClelland started to contribute into the entrepreneurship research (Carlsson et al., 2013, p. 918). The research development concentrated on entrepreneur’s personal qualities and traits, whereas the role of entrepreneurship in the economic development was similarly acknowledged (Carlsson et al., 2013, p. 918; Landström et al., 2012, p. 1155). During the last 50 years trait-based research has revealed several attributes and motivations, which have positive influence on entrepreneurial actions (see Carland et al., 1984; Shane, 2003). This trait-based research is today highly criticized to dominate the entrepreneurship research (Shane & Venkataraman, 2000, p. 218), but similarly researchers acknowledge that enterprising individuals construct the field of entrepreneurship together with the lucrative opportunities (Venkataraman, 1997, p. 121).

With bearing the theoretical development in mind, we start to construct our theoretical framework for the study. We argue that opportunities are the core of entrepreneurship as well as sustainable entrepreneurship processes. In the following sections we are discussing the opportunity forming and exploitation theories in more detailed. As our study aims to investigate entrepreneurial and institutional motivations impacting entrepreneur’s decision to form and exploit sustainability-oriented opportunities, the core opportunity process needs to be clarified. In this sense, there can be identified many similarities and few exceptions when moving from profit-orientation towards sustainable entrepreneurship.

### 2.1.2 Opportunity Forming

The research development has strongly concentrated on the dominant entrepreneur view, while the role of opportunities have been just recently started to receive scholarly attention (Short et al., 2009, p. 41). Shane & Venkataraman (2000, p. 217) similarly highlighted that previous research has been concentrated on the small business context either through individual or organizational performance. In this study, the strong focus on entrepreneurship as well as on sustainable entrepreneurship context concentrates on the opportunities. The chosen approach is supported in the following quotes: “without an opportunity, there is no entrepreneurship” (Short et al., 2009, p. 40) and “to have entrepreneurship, you must first have entrepreneurial opportunities” (Shane & Venkataraman, 2000, p. 220).

There are several suggestions in the literature concerning the definition of entrepreneurial opportunities. According to Wiklund et al. (2011, p. 1), researchers are defining the field by following the best-cited article of the decade written by Shane & Venkataraman (2000). They defined entrepreneurial opportunities as “situations in
which new goods, services, raw materials, and organizing methods can be introduced and sold at greater than their cost of production” (Casson, 1982, cited in Shane & Venkataraman, 2000, p. 220). The definition clearly highlights the new innovation and new combination approach as Schumpeter (1990, p. 106) earlier described. Although the definition is valid, we criticize it to highlight value creation only through the episodic process. As we are aiming to combine Kirzner’s, Schumpeter’s and Lachmann’s approaches, we adopt the definition from Eckhardt & Shane (2003) and define entrepreneurial opportunities as “situations in which new goods, services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends, or means-ends relationships” (Eckhardt & Shane, 2003, p. 336). Here the episodic process is driven through new means and ends, while simultaneously allowing creative entrepreneurial decision-making and recombination of resources (Chiles et al., 2007, p. 476; Eckhardt & Shane, 2003, p. 336).

Sarasvathy et al. (2005, p. 146) divided opportunities into three categories of recognition, discovery and creation. In table 1, we have summarized their interpretations by concluding only features that are considered to be valid for the study on hand.

### Table 1. Three Views of Entrepreneurial Opportunity (Sarasvathy et al., 2005, p. 146).

<table>
<thead>
<tr>
<th>View</th>
<th>Recognition</th>
<th>Discovery</th>
<th>Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunity</td>
<td>Possibility of putting resources to good use to achieve given ends.</td>
<td>Possibility of correcting errors in the system and creating new ways of achieving given end.</td>
<td>Possibility of creating new means as well as new ends</td>
</tr>
<tr>
<td>Domain of Application</td>
<td>Both supply and demand are known.</td>
<td>Only one or the other (supply or demand) known.</td>
<td>Both supply and demand are unknown.</td>
</tr>
<tr>
<td>Management of Uncertainty</td>
<td>Diversification</td>
<td>Experimentation</td>
<td>Effectuation</td>
</tr>
</tbody>
</table>

In the opportunity recognition view, the opportunity concerns the optimal use of scarce resources when supply and demand clearly exists and these needs to be brought together through opportunity recognition (Sarasvathy et al., 2005, p. 145-147). In this context, the uncertainty is low in its nature while individuals have access to the same information enabling defined risk probability that can be managed through diversification (Sarasvathy et al., 2005, p. 151). Similarly opportunity recognition occurs randomly, because with the same information available all individuals can equally detect a given opportunity in the competitive market equilibrium (Sarasvathy et al., 2005, p. 151).

The opportunity discovery concerns correcting the market failure with creating new ways to achieve a given end, whereas supply or demand is known and the other one needs to be “discovered” (Sarasvathy et al., 2005, p. 151-153). The process concerns a given end and the decision-making is done between different means (Sarasvathy, 2001, p. 251). The management of uncertainty follows the Knightian uncertainty model, where the probability can be revealed through repeated trials (Sarasvathy et al., 2005, p. 144).
Finally, the opportunity creation process recognizes entrepreneurial imagination and the creative process of re-combining means and ends in order to create supply as well as demand (Chiles et al., 2007; Sarasvathy et al., 2005, p. 145-146). Uncertainty is managed through the effectuation process, where predictability does not matter and the logic follows controlling rather than prediction processes: “to the extent that we can control future, we do not need to predict it” (Sarasvathy, 2001, p. 251).

Although presented views of entrepreneurial opportunities commonly characterize the conventional entrepreneurship approach, we consider only opportunity discovery and creation processes to be valid for this study. Ardichvili et al. (2003, p. 106) supported this approach by arguing, “Opportunities are made, not found.” According to Sarasvathy et al. (2005, p. 145) in the opportunity recognition process opportunities are only founded by bringing existing supply and demand together. Similarly, organizational entrepreneurship literature assumes that recognition is done through discovery (Chiles et al., 2007, p. 474), which constructs an overlapping approach. Based on this, we include opportunity recognition to be a part of opportunity discovery process. Finally, Shane & Venkataraman (2000, p. 220) considered discovered opportunities to be objective in their nature, whereas Alvarez & Barney (2007, p. 13) referred to the subjective nature of created opportunities. Through integration, we are able to move away from dominating objective methodological assumptions and provide knowledge based on more realistic approach.

In the current literature, Alvarez & Barney (2007) and Shane & Venkataraman (2000) have contributed to the development of opportunity creation and discovery theories in the entrepreneurship context. As discussed, we see these two theories to complement each other rather than being two distinctive theoretical perspectives. Sarasvathy et al. (2005, p. 158) supported this conclusion by stating that in order to create a deeper understanding of entrepreneurial opportunities, researchers need to integrate these approaches together. Similarly the decision is context-dependent (Sarasvathy et al., 2005, p. 158) and we perceive sustainable entrepreneurship context to be suitable for following the integration approach. Additionally, both theories are sharing the same assumption that entrepreneur’s main goal is to form and exploit opportunities (Alvarez & Barney, 2007; Alvarez et al., 2013). In table 2 central assumptions regarding both theories have been presented and later discussed.

Table 2. Central Assumptions of Discovery and Creation Theories (Alvarez & Barney, 2007, p. 13).

<table>
<thead>
<tr>
<th>Nature of Opportunities</th>
<th>Discovery Theory</th>
<th>Creation Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunities exist, independent of entrepreneurs. Applies a realist philosophy.</td>
<td>Opportunities do not exist independent of entrepreneurs. Applies an evolutionary realist philosophy.</td>
<td></td>
</tr>
<tr>
<td>Nature of Entrepreneurs</td>
<td>Differ in some important ways from non-entrepreneurs, ex ante.</td>
<td>May or may not differ from non-entrepreneurs, ex ante. Differences may emerge, ex post.</td>
</tr>
<tr>
<td>Nature of Decision-Making Context</td>
<td>Risky</td>
<td>Uncertain</td>
</tr>
</tbody>
</table>

As presented in table 2 central assumptions from both theories can be discussed based on the nature of opportunities, the nature of entrepreneurs and the nature of decision-
making context. In the discovery theory opportunities exist independently from entrepreneurs as a result of exogenous shocks (Hmieleski & Baron, 2008, p. 285; Shane & Venkataraman, 2000, p. 221). For example Kirzner (1973, p. 10) described exogenous shocks accumulating from consumer taste, technological changes and/or resource availability. The opportunity creation theory assumes that opportunities are not objective in their nature and instead of exogenous shocks entrepreneurs create lucrative opportunities (Alvarez & Barney, 2007, p. 15; Hmieleski & Baron, 2008, p. 286). In this context Sarasvathy (2001, p. 245) presented the effectuation process, where “effectuation processes take a set of means as given and focus on selecting between possible effects that can be created with that set of means.” Entrepreneur acting accordingly form opportunities that would not have been known without the entrepreneurial action (Alvarez & Barney, 2007, p. 15). Regarding the entrepreneurial nature, the opportunity discovery theory assumes that entrepreneurs differ from each other when forming and exploiting opportunities (Alvarez & Barney, 2007, p. 16; Ardichvili et al., 2003, p. 113). Although exogenous shocks are creating objective opportunities available for each individual to detect them, entrepreneurs differ in their level of alertness and accordingly are different from each other (Alvarez & Barney, 2007, p. 14; Kirzner, 1973, p. 67). The opportunity creation theory share similar assumption regarding the entrepreneurial alertness, but additionally entrepreneurs can be relatively identical and the forming process is triggered through for example a pure luck (Alvarez & Barney, 2007, p. 16). As the opportunity discovery theory assumes that opportunities are objective in their nature, the entrepreneur is able to reveal the risk probability through trial and error experimentation (Sarasvathy et al., 2005, p. 144; Shane & Venkataraman, 2000, p. 220). Due to this, entrepreneurs can use statistical methods in order to understand outcomes of the opportunity as well as the probability of these outcomes (Alvarez & Barney, 2007, p. 14). The opportunity creation theory assumes that opportunities are subjective in their nature and they do not exist until created (Hmieleski & Baron, 2008, p. 286). In opportunity formation and exploitation decisions entrepreneur is not able to collect adequate amount of information required to reveal the decision outcome or probabilities of different outcomes creating an uncertain decision-making context (Alvarez & Barney, 2007, p. 16).

By considering opportunity discovery and creation theories as isolated processes, it is not possible to capture the full frame of these theories. According to Short et al. (2009, p. 55) “an opportunity is an idea or dream that is discovered or created by an entrepreneurial entity and that is revealed through analysis over time to be potentially lucrative.” By following this line of argumentation, opportunity forming is a cyclical process linked with discovery or creation as well as analysis, which we refer as opportunity evaluation (see figure 1). In their opportunity model, Ardichvili et al. (2003, p. 118) argued that evaluation functions in a cyclical manner throughout the opportunity process. Evaluation is conducted continuously and eventually cyclical

Figure 1. Opportunity Forming.
process can lead to new opportunities, adjustments into the discovered or created opportunity or to an exploitation decision (Ardichvili et al., 2003, p. 118). In the opportunity creation context, the role of evaluation is similarly obvious. Sarasvathy (2001) argued that in the effectuation process the available set of means are used to select between several possible effects (ends) and during the process entrepreneur continuously evaluate what is the best possible outcome with the means available. Additionally resources available are continuously evaluated in the opportunity forming process (Alvarez & Busenitz, 2001). For example costs of resources as well as financial resources available are affecting the entrepreneur’s decision whether to continue opportunity development, move to opportunity exploitation or even to abort the process (Ardichvili et al., 2003; Shane & Venkataraman, 2000). Thus, we consider resources to be included in the opportunity forming process through evaluation.

The figure 1 highlights our perceptions to entrepreneurship, in where entrepreneurship concerns the nexus of two phenomenons: the presence of lucrative opportunities as well as enterprising individuals (Venkataraman, 1997, p. 121). Similarly it takes Kirznerian individual, Schumpeterian innovative “creative destruction” through the opportunity discovery and Lachmann’s opportunity creation approaches into account (Alvarez & Barney, 2007; Chiles et al., 2007; Kirzner, 1973; Shane & Venkataraman, 2000; Schumpeter, 1990). On the other hand, opportunity formation process in figure 1 does not take into account of one essential issue following our definition of entrepreneurial opportunities: “situations in which new goods, services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends, or means-ends relationships” (Eckhardt & Shane, 2003, p. 336 - italics added). Accordingly, opportunity needs to be introduced to the market and in the next section we expand the framework by including introduction through opportunity exploitation processes.

2.1.3 Opportunity Exploitation

Although the entrepreneur is able to discover or create opportunities, without a decision to exploit lucrative opportunities, value cannot be created (Shane & Venkataraman, 2000, p. 222). Similarly contextual characteristics play a key role when the entrepreneur is executing the exploitation decision, which highlights the role of motivations in the decision-making process (Eckhardt & Shane, 2003, p. 339; Short et al., 2009, p. 57). Accordingly the decision is again dependable on the nature of the opportunity and the nature of the individual (Venkataraman, 1997) as well as on the level of uncertainty in the decision-making (Knight, 1921).

Eckhardt & Shane (2003, p. 339) argued that the exploitation decision depends on the value of the opportunity. Each entrepreneurial opportunity varies in several dimensions, which accordingly influence on their expected value (Shane & Venkataraman, 2000, p. 222). Thus the expected value needs to be higher than the opportunity cost of other alternatives, which can be in a form of loss of a leisure time, monetary value issues or the challenges accumulating from the uncertainty of opportunities (Shane & Venkataraman, 2000, p. 222). Ardichvili et al. (2003, p. 112) came to a similar conclusion and linked the Schumpeter’s (1990) exploitation assumptions through innovation into the value creation dependability with the choice of whether to exploit opportunity to the market. Here the value can be analyzed either through market needs (value sought) or resources available (value creation capability), which leads
entrepreneur to either proceed with or abort the opportunity process (Ardichvili et al., 2003, p. 111-112).

By following the Knightian uncertainty model (Knight, 1921) entrepreneur’s nature to bare risks and ability to confront the uncertainty have influence on the decision whether to exploit the opportunity. In this context the higher uncertainty decreases possibilities to calculate the risk probability (Dew et al., 2008) and requires a specific entrepreneurial nature (Shane & Venkataraman, 2000, p. 223). Similarly, Ardichvili et al. (2003) and Shane & Venkataraman (2000) defined optimism through self-efficacy, internal locus of control, ambiguity tolerance and high need for achievement to have positive effects on entrepreneur’s exploitation decision. Shook et al. (2003) argued that specific entrepreneurial traits and motivations have a positive impact to the exploitation decision-making. Thus it is vital to notice that described entrepreneurial attributes increase the probability of opportunity exploitation, but not guarantee the success (Shane & Venkataraman, 2000, p. 224). Over-optimistic behavior can also increase the probability of failure after the exploitation, while failing to estimate the level of competitiveness or the degree of imitative actions may lead to an establishment of an unsuccessful firm (Shane & Venkataraman, 2000, p. 224).

Shane & Venkataraman (2000, p. 224) identified practical modes of exploitation by defining two institutional arrangements: creation of a new firm and the exploitation through an existing firm. In figure 2 we aim to link the opportunity exploitation modes together with the opportunity forming process.

Figure 2. Opportunity Forming and Exploitation.

According to Shane & Venkataraman (2000, p. 224) the most common way to exploit opportunities is through an establishment of a new firm, but in some cases people pursue opportunities on behalf of the existing organization or even trade the opportunity to them. Cohen & Levin (1989, p. 1090-1095) described entrepreneurship to be more probable, if individuals lack incentives to pursue opportunities through existing organizations or the existing organization sees value as inadequate. Similarly following the Knightian uncertainty model, opportunities are pursued through entrepreneurial start-ups, if the uncertainty is high (Shane & Venkataraman, 2000). In some cases, the decision can be considered as a more overlapping hybrid mode, while entrepreneurs can pursue opportunities on behalf of the existing firm leading to a creation of a subsidiary start-up (Shane & Venkataraman, 2000, p. 224).
Figure 2 similarly form the basis for our entrepreneurship definition, which is created by following the argumentation from Chiles et al. (2007) and Shane & Venkataraman (2000). Chiles et al. (2007, p. 476) highlighted the existence of Lachmann approach, which argued in favor of the entrepreneurial opportunity creation and the opportunity exploitation through a recombination of resources. Shane & Venkataraman (2000, p. 218) defined entrepreneurship through the opportunity discovery as “the processes of discovery, evaluation, and exploitation of opportunities; and the set of individuals, who discover, evaluate and exploit them.” In addition, by following the argumentation from Schumpeter (1934, cited in Alvarez & Busenitz, 2001, p. 761), we link the first part of the definition to the Schumpeterian idea that invention (non-commercialized) is considered as a discovery of an opportunity, while innovation (commercialized) as a “creative destruction” is driven through exploitation process. The latter part of the definition highlights the individual approach derived from the entrepreneurial alertness assumption by Kirzner (1973, p. 68-70). The definition from Shane & Venkataraman (2000, p. 218) lacks the opportunity creation theory and thus we define entrepreneurship as the processes of discovery, creation, evaluation and exploitation of opportunities to create future goods and services; and the set of individuals, who discover, create, evaluate and exploit them (Chiles et al., 2007, p. 473; Shane & Venkataraman, 2000, p. 218). Here the focus is on the sources of opportunities, the entrepreneur and the outcomes of exploitation (Venkataraman, 1997, p. 120) By adopting this definition, we are able in the later phase similarly define sustainable entrepreneurship by combining the entrepreneurship literature together with the sustainable value approach.

2.2 Sustainability and Sustainable Development

Sustainability and sustainable development have been regarded as one the most prominent subjects in today’s academic field (Shepherd & Patzelt, 2011, p. 137). The role of academics is linked with revealing complex web of causes and studying integrations between environmental, social and economic processes in the business context (McCool & Stankey, 2000). The current global crisis not only concerns the economic downturn, but similarly has effects to the social well-being and ecological degradation (Heikkurinen & Bonnedahl, 2013, p. 191). Due to the negative development, there is a growing demand to transform economies and societies to pursue more sustainable practices (Adams et al., 2016, p. 180; Slaper & Hall, 2011, p. 4). Similarly the current business paradigm needs to be shifted away from exploiting Earth’s resources over its limits (Stead & Stead, 1994), while “the world is made for man, not man for the world” (Bacon, n.d., cited in Hopwood et al., 2005, p. 38-39). According to Hopwood et al. (2005, p. 38) sustainability and sustainable development have many different meanings in the current literature, which have resulted a huge amount of responses without a specific consensus. Bearing this in mind, there is a need to clarify one’s position towards sustainability if any contribution from the research can be made (Gibbs, 2006, p. 65). We perceive sustainability and sustainable development similar to the triple bottom line approach, which sees the value created in terms of people, planet and profit (Elkington, 1999, p. 70).

Despite the current negative development in the global context, sustainability issues and problems cannot be considered to present the modern day phenomenon. The ancient societies, Babylonian and Roman Empires, presented the earliest examples regarding problems accumulating from environmental degradation, which partially contributed to the perishment of both empires (Mebratu, 1998, p. 496). Similarly, crisis in the agrarian
solar system in the 14th century stimulated a further discussion about the role of sustainability in societies (Schlöer et al., 2012, p. 329). Despite the lessons learned from the historical development, global warming through increased energy consumption and its social side effects have the potential, once again, to sustain the world into a substantial state of emergency (Soytas & Sari, 2007, p. 1).

Sustainable development has developed during the recent years to present one of the most influential concepts for policy makers and businesses, but in many contexts’ the definition is controversial (Hall et al., 2010, p. 439). The term sustainable development appeared to be used only in the forest industry context until 1970s (Schlöer et al., 2012, p. 326). At 1972 the UN Conference on Human Environment in Stockholm took the development further by recognizing the “importance of environmental management and the use of environmental assessment as a management tool” (DuBose et al., 1995, cited in Mebratu, 1998, p. 500). Similar time a group of scientists and citizens, called Club of Rome, wrote a report about the current state of the natural environment, which confirmed that Earth’s ecological limits have been reached (Mebratu, 1998, p. 501). The ultimate breakthrough was achieved in 1987 when the Brundtland Report was published and sustainable development was defined as “development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs” (WCED, 1987). We perceive that the definition is valid for this study, while the similar approach has been adopted by the most cited literature in the sustainable entrepreneurship context (e.g. Hall et al., 2010; Hockerts & Wüstenhagen, 2010; Pacheco et al., 2010).

Heikkinen & Bonnedahl (2013, p. 192) argued that the role of market actors for sustainable development is essential, but the conceptualization is still today unclear. Hockerts & Wüstenhagen (2010, p. 483) brought up a similar concern while in the practical context word “greening” is used to describe sustainable development, although the original meaning leans towards environmental sustainability. The conceptualization as well as assumptions for the study can be made by dividing sustainability approaches into the weak and strong sustainability (Heikkurinen & Bonnedahl, 2013, p. 193). Weak sustainability sees natural and man-made capital as substitutable (no trade-off) whereas the strong sustainability treats them as complements (trade-off) (Heikkurinen & Bonnedahl, 2013, p. 193). In this context the strong sustainability refers to the economic development through qualitative improvement, but the weak sustainability enables also quantitative growth where economic growth will not jeopardize the sustainable development (Heikkurinen & Bonnedahl, 2013, p. 193). To be more precise in our approach to sustainable development we adopt the weak sustainability perspective into the study. We perceive that the economic growth does not generate a trade-off with the sustainable development. According to Heikkurinen & Bonnedahl (2012, p. 193) the choice is valid and in line with our sustainable development definition. The Brundtland report similarly denies absolute limits by stating: “technology and social organization can be both managed and improved to make way for a new era of economic growth” (WCED, 1987, p. 24). Parrish (2010, p. 512) referred to a similar perception by arguing that although an entrepreneur aims to improve social and environmental well-being, it does not exclude profitability.

Corporate Social Responsibility (CSR) initiatives exploited through existing firms have been dominating sustainability research, but the emphasis is slowly transferring towards entrepreneurial firms (Cohen & Winn, 2007, p. 35; Hall et al., 2010, p. 441). CSR as a
concept was initially developed during the post-World War II period, but the importance gain more attention from the 1960s to the present day (Carroll & Shabana, 2010, p. 85). Today it represents a sustainability approach in a management and organizational context (Carroll & Shabana, 2010; Dahlsrud, 2008). As a concept CSR can be defined through several dimensions (Carroll & Shabana, 2010, p. 89). Dahlsrud (2008, p. 4) presented a five-dimension model of CSR by dividing it to environmental, social, economic, stakeholder and voluntariness dimensions. Commission of the European Communities (2001, p. 6) applied this approach and defined CSR as “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis.” Carroll & Shabana (2010, p. 89) adopted four-dimensional approach, where economic, legal, ethical and discretionary factors construct desired activities in organizations. In this context CSR can be defined: “the social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point of time” (Carroll, 1979, p. 500).

Although the definition of sustainable development (WCED, 1987) is suitable for macroeconomic approach and CSR is a feasible concept in the organizational as well as in managerial context (Carroll & Shabana, 2010; Dahlsrud, 2008), Gimenez et al. (2012, p. 150) argued that there is a need for more practical micro-level approach. While it is widely acknowledged that the definition of sustainable development incorporates social, economical and environmental responsibilities, the operationalization in practice and in theory is conducted through the triple bottom line concept (3BL) (Gimenez et al., 2012, p. 150; Norman & MacDonald, 2004, p. 243). The term triple bottom line was firstly introduced in the mid 1990s by management Think-tank Company called AccountAbility, but it received public attention on 1997 when John Elkington published a book called Cannibals With Forks: The Triple Bottom Line of 21st Century Business (Norman & MacDonald, 2004, p. 244). In his book Elkington defined 3BL as “the simultaneous pursuit of economic prosperity, environmental quality and social equity” (Elkington, 1999, p. 397). More practically the definition highlights the balance between people, planet and profit (see figure 3), but in this context the people perspective is often overlooked (Elkington, 1999, p. 70). 3BL is in the current literature primarily linked with the corporate sustainability and/or CSR related research, but according to Hall et al. (2010, p. 445) there is a growing need to incorporate 3BL perspective into the entrepreneurship research. Sustainability and CSR are not synonymous terms and should be studied separately, whereas 3BL is operationalized through individual firms (Choi & Gray, 2008, p. 559-560) creating a suitable lens for the purpose of the study.

3BL as a concept has received a heavy criticism during the past 15 years, because the opponents believe that it is impossible to create solid measurement tools that would clearly reveal the exact social or environmental bottom line outcomes of a firm (Norman & MacDonald, 2004). Pava (2007) attacked against this criticism by stating that claims made by Norman & MacDonald (2004) are flawed and without any consensus. We agree with the critical perception, but in the similar vein acknowledge that the total value outcome of the 3BL is not dependable on one single factor or how detailed it can be measured. Rather we perceive it as a an integration of economic, social and environmental outputs where a single entity can produce a smaller output than the other, but its contributing value can be integrated to the total sustainable value, which is the outcome of the opportunity exploitation.
Schlange (2009, p. 22) presented a framework, where the sustainability is integrated to cover all dimensions of the 3BL and the value can be greater than the sum of its parts. We perceive sustainable value as a combination of 3BLs original idea together with the framework from Schlange (2009, p. 22). Thus the sustainable value is an integration of each part in the 3BL framework, but the value can be created in an unbalanced matter where each part does not need to create an identical output. Similarly we argue that the significance of value created, by a single entity in figure 3, is context-dependent. For example, a new employment opportunity created through entrepreneurial process in a rural or in less developed geographical area can create a greater social value for the individual than in the metropolitan area. In this case, employment can prevent inequality and enhance social life through new social networks. Same outcomes are imaginable in the larger context, but the importance of produced social value might be less meaningful for the individual while probabilities to form social networks even without the employment are higher. Slaper & Hall (2011, p. 5) endorsed the similar approach by claiming that there are no universal measurement standards of 3BL and accordingly framework can be adapted based on the context. All in all we perceive the sustainable value as an integration of economic, social and environmental value outcomes created through formed and exploited opportunities.

### 2.3 Different Forms of Entrepreneurship

By following the value creation argumentation through the 3BL, we perceive that the value can be created in four different forms of economic, social, environmental or all forms combined. These value creation models correspond to the conventional, social, environmental and sustainable entrepreneurship approaches. We argue that the value creation can be exploited through for-profit, non-profit and public organizations, but our approach concentrates on for-profit context. Accordingly we can explore the phenomenon through entrepreneurial firms, who aim for profit and growth as well as are self-sustained without specifically relying on external or public funding.

In the following sections we are discussing different forms of entrepreneurship. We perceive that earlier discussed conventional entrepreneurship research is the foundation for social, environmental and sustainable entrepreneurship approaches. Social and environmental entrepreneurship research is not a subset of sustainable entrepreneurship research rather we perceive all three approaches to be subsets of conventional entrepreneurship research. Similarly Thompson et al. (2011, p. 219) argued: “Social, sustainable, and environmental entrepreneurship concepts are not separable from, and, therefore, appropriately located under the larger entrepreneurship domain.” As our study concentrates on sustainable entrepreneurship, we discuss only briefly the main points of social and environmental entrepreneurship. It is not reasonable to extract these two research streams out of the scope, while the research development of sustainable
entrepreneurship is partially constructed through social and environmental entrepreneurship (Hockerts & Wüstenhagen, 2010; Thompson et al., 2011).

2.3.1 Social Entrepreneurship

According to Bacq & Janssen (2011, p. 375) the origins of social entrepreneurship go back to 1983 when “innovative non-profit entrepreneurs” following the Schumpeterian approach were firstly discussed. During the past decade social entrepreneurship has been discussed as a “new phenomenon”, which has changed our ways to think how social value is created (Mair et al., 2006, p. 1). Accordingly public sector as well as academics has started to put more emphasis on the phenomenon (Bacq & Janssen, 2011, p. 373). As a result the development has highlighted advantages of the social entrepreneurship research when considering the role of innovativeness in treating social problems and the existence of hybrid firms constructed from private and public sector entities (Bacq & Janssen, 2011, p. 374). Although the phenomenon is novel in the research context, social issues and social entrepreneurs have existed in practice for a longer period of time (Mair et al., 2006, p. 1).

Despite the recent development and rise of the academic interest, the conceptualization of the social entrepreneurship remains substantially controversial (Weerawardena & Mort, 2006, p. 21). It is a common feature for emerging research field, which tries to define its theoretical boundaries and integrations with other disciplines (Marti, 2006, p. 17). According to Weerawardena & Mort (2006, p. 21) “social entrepreneurship remains an emerging but ill-defined concept.” We observe similarly that the current literature is concentrating on discussing how to define the field in terms of social entrepreneurship, social entrepreneurs and social firms. Mair & Marti (2006, p. 37) tried to clarify these ambiguities by stating: “definitions of social entrepreneurship typically refer to a process or behavior; definitions of social entrepreneurs focus instead on the founder of the initiative; and definitions of social enterprises refer to the tangible outcome of social entrepreneurship.” In this context Dacin et al. (2010, p. 37) concluded that the most suitable approach could be achieved through the integration of existing entrepreneurship frameworks to the social entrepreneurship context.

Based on our literature search the current literature does not share one similar approach concerning of what factors construct the opportunity framework in social entrepreneurship. Dacin et al. (2010, p. 42) argued that the social entrepreneurship research should focus on the social value creation and outcomes rather than the specific processes leading to this. Austin et al. (2006, p. 2) came to a similar conclusion by defining social value as the underlying driver for social entrepreneurship and innovation as the way to achieve this goal. Similarly it is impossible to define one unified entrepreneurial process while different processes characterize social activities in different contexts (Dacin et al., 2010, p. 42). We perceive that the outcome, in a form of social value, is more important for the research than the process itself. But according to Austin et al. (2006, p. 3), the social value itself is not an adequate measure of social entrepreneurship, it will also include economic dimension. Zahra et al. (2009, p. 521) referred to this by arguing that social entrepreneurship is constructed through double bottom line approach, which places social and economic dimension on an equal footing. Accordingly we expand our definition of entrepreneurship with the specific value creation approach and define the social entrepreneurship as the processes of discovery, creation, evaluation and exploitation of opportunities to create future goods and services.
that is consistent with social and economic goals; and the set of individuals, who discover, create, evaluate and exploit them (Austin et al., 2006, p. 3; Chiles et al., 2007, p. 473; Pacheco et al., 2010, p. 471; Shane & Venkataraman, 2000, p. 218). Following the line of argumentation when defining the conventional entrepreneurship, social entrepreneurship similarly focuses on the sources of opportunities, the entrepreneur and the outcomes of exploitation (Venkataraman, 1997, p. 120).

Social entrepreneurship concentrates on creating social value and the social mission (Dacin et al., 2010, p. 42), which is referred in our definition as social goals. The social goal is not possible without an economic value creation and self-sustained nature of the firm (Dacin et al., 2011, p. 1206). Some social entrepreneurship studies see profitability to present the dark side of the phenomenon, but according to Dacin et al. (2011, p. 1205) often financial resources are the only way to achieve the primary social goal. Similarly the value created by a new entrepreneurial firm is mainly represented in terms of objective economic outcomes, but these economic outcomes also create direct and indirect social value (Haugh, 2006, p. 181-182). For example the following social outcomes can be identified (for extensive list see Haugh, 2006, p. 186-187):

- Improved quality of life and access to services
- Supply of services to the community
- Increase in level of individual confidence, satisfaction with life, personal networks and perceived self-esteem

Austin et al. (2006, p. 5) expanded the value perspective by arguing that the social value is the outcome of a bargained deal and as a consequence the transactions made generate bundle of values. These values can include economic benefits, social recognition, autonomy and decision rights, satisfaction of deep personal needs, social interactions, fulfillment of generative and legacy desires, and delivery on altruistic goals (Austin et al., 2006, p. 5). As the primary mission of social entrepreneurship is clear, we perceive that the social value creation is more diverse in its nature as well as context-dependent. According to Haugh (2006, p. 196-197) the created social value could be divided into different outcome levels of individual, enterprise, community and region.

![Figure 4. Different Forms of Social Entrepreneurship (Smith & Stevens, 2010, p. 586).](image-url)
Zahra et al. (2009) aimed to address this complexity by dividing social entrepreneurship into three different categories of social bricoleurs, constructionists and engineers (figure 4). These typologies of social entrepreneurship aim to capture for example different levels of social value creation (Dacin et al., 2010, p. 41). Accordingly social bricoleurs act and create value in a more local context, social constructionists concentrate on value creation from local to international scale whereas social engineers are dealing with the national and international social needs (Smith & Stevens, 2010, p. 585; Zahra et al., 2009, p. 523). Similarly social bricoleurs are more embedded with the local stakeholders and resources, while social engineers are functioning in a less embedded environment enabling them to scale up their functions more flexible (Smith & Stevens, 2010, p. 587).

To summarize, the social entrepreneurship concentrates more on the social value creation and social mission through innovation rather than to the entrepreneurial process leading to the social goal (Austin et al., 2006, p. 2; Dacin et al., 2010, p. 42). Similarly, the scope and embeddedness of social entrepreneurship vary depending on the outcome levels, geographical scale and scope (Haugh, 2006, p. 196-197; Smith & Stevens, 2010, p. 586; Zahra et al., 2009, p. 523). We perceive social value to correspond with the social dimension on 3BL as an indirect or direct consequence of an entrepreneurial firm’s outcomes. Additionally the value can be created on local and/or more global level, which creates a foundation for our value creation framework in the sustainable entrepreneurship context (see chapter 2.3.3).

2.3.2 Environmental Entrepreneurship

The growing emphasis regarding the sustainable development has brought up several research areas, which concerns environmental degradation and how entrepreneurship can contribute to the scarcity of natural resources (Pacheco et al., 2010, p. 464). The ecopreneurship research has been the most contributing research area (Schaltegger, 2002, p. 47), but the recent development has acknowledged similarly the role of green entrepreneurship and environmental entrepreneurship, which address similar problems from the academic perspective (Pacheco et al., 2010, p. 464). We perceive the environmental entrepreneurship to provide the most suitable framework regarding our study, while the literature in this area enhances the similar entrepreneurial approach that has been discussed earlier. Dean & McMullen (2007, p. 51) supported our perception by stating that the entrepreneurial action related to the environmental entrepreneurship is the key for resolving environmental challenges. Similarly Cohen & Winn (2007, p. 30) studied problems with the environmental degradation by arguing that “it is our view that the real gains will be made by harnessing the innovative potential of entrepreneurship to resolve environmental challenges with innovative business solutions.” These views have been criticized by social entrepreneurship scholars who argued that the environmental degradation is covered in the social entrepreneurship literature, which aims to solve problems related to the public goods including environment (Hockerts, 2006, p. 209). Despite the criticism we perceive environmental entrepreneurship as a distinct research area from the social entrepreneurship due to the different assumptions about the value creation.

Despite the recent attention from entrepreneurship scholars, environmental entrepreneurship as a research field remains to be emerging and nascent (Thompson et al., 2011, p. 216). The distinction between social, environmental and sustainable
entrepreneurship is in some stages vague, while the literature uses terms more or less synonymously (Thompson et al., 2011, p. 217). The distinction can be made through the value creation approach, where social entrepreneurship concentrates on creating social and economic value (Austin et al., 2006, p. 3), environmental entrepreneurship has environmental and economic mission (Dean & McMullen, 2007; Cohen & Winn, 2007), and sustainable entrepreneurship aims to balance the social, environmental and economic value creation through the 3BL (Hall et al., 2010). We perceive the social entrepreneurship to be a more distinct approach from the sustainable entrepreneurship, but environmental entrepreneurship is able in specific context to provide social, environmental and economic value where social value can be defined in terms of new employment opportunities and extensions in individual’s social networks. Thompson et al. (2011, p. 214) came to a similar conclusion by stating that the environmental entrepreneurship may have overlaps with the social and sustainable entrepreneurship. Accordingly we treat environmental entrepreneurship literature as a partly overlapping with the sustainable entrepreneurship literature, but defining environmental entrepreneurship based on the economic and environmental value creation.

Similar to our social entrepreneurship definition, environmental and economic goals refer to the double bottom line approach where environmental and economic objectives are placed on the equal footing. Accordingly Dean & McMullen (2007, p. 58) defined environmental entrepreneurship as “the process of discovering, evaluating, and exploiting economic opportunities that are present in environmentally relevant market failures.” Thompson et al. (2011, p. 218) followed similar path by defining environmental entrepreneurship as “the simultaneous creation of economic and ecological profit by addressing environmentally relevant market failures.” By following the line of argumentation, we can observe that the environmental entrepreneurship is constructed through the nexus of lucrative opportunities and enterprising individuals (Venkataraman, 1997, p. 121). Based on this we expand our definition of entrepreneurship with the specific value creation approach and define environmental entrepreneurship as the processes of discovery, creation, evaluation and exploitation of opportunities to create future goods and services that is consistent with environmental and economic goals; and the set of individuals, who discover, create, evaluate and exploit them (Chiles et al., 2007, p. 473; Dean & McMullen, 2007, p. 58; Pacheco et al., 2010, p. 471; Shane & Venkataraman, 2000, p. 218). Similar to our definition of the entrepreneurship and social entrepreneurship, the focus is on the sources of opportunities, the entrepreneur and the value creation (Venkataraman, 1997, p. 120).

While the exact value created in terms of the social entrepreneurship is a complex phenomenon, environmental entrepreneurship does not either correspond to any specific value creation frameworks (Anderson, 1998, p. 139). Schaltegger (2002, p. 46) discussed that value can be created through new products, services, techniques and organizational modes, which reduce the environmental impact and improve the quality of life. Haugh (2006, p. 186-187) argued that the direct and indirect value creation could include the following factors:

• Reduction of unrecycled waste
• Improved appearance of physical environment
• Contribution to sustainability agenda
• Improved environmental context
Parrish (2010) studied sustainability-driven firms in terms of principles in the organizational design. Firms’ environmental contributions were identified in terms of innovative products and services, which are reducing air pollution, gas emissions, chemicals used in watersheds, enhancing restoration of ancient woodlands and protection of coral reefs (Parrish, 2010, p. 515). Accordingly we identify environmental value creation to be driven through innovative products and services that are developing the current state of the environment.

As a conclusion we perceive the environmental entrepreneurship to be constructed through entrepreneurial opportunity forming and exploitation processes aiming to generate economic and environmental value. The opportunity approach corresponds to the processes described earlier related to the conventional and social entrepreneurship. Although the process is similar, we perceive that the variation between different approaches accumulates from the nature of the value creation. The conventional entrepreneurship creates value in terms of monetary value, social entrepreneurship in terms of social and economic value, while environmental entrepreneurship aims to create environmental and economic value. In the next section we aim to integrate the value creation framework corresponding to the triple bottom line approach (see figure 3) and define the context of sustainable entrepreneurship.

2.3.3 Sustainable Entrepreneurship

The concept of sustainable entrepreneurship has been used in a research context since the millennium (Lumpkin & Katz, 2011, p. 13) and most commonly recognized to form a sub-field in the entrepreneurship research (Kuckertz & Wagner, 2010, p. 525). Most simply stated sustainable entrepreneurship combines words entrepreneurship and sustainability (Schaltegger & Wagner, 2011, p. 226). According to Zahra et al. (2009) the research area has emerged from the social and environmental entrepreneurship literature, but still today the research on sustainable entrepreneurship has been sparse and scattered within multiple research streams (Hall et al., 2010, p. 440; Thompson et al., 2011).

Hockert’s (2006, p. 212) highlighted complexities when considering the sustainable entrepreneurship as a separate field of research. Accordingly sustainability should be studied under the social entrepreneurship umbrella, while the current research has identified “social ecopreneurs” to be similar with sustainability-driven entrepreneurs (Hockerts, 2006, p. 211). Thompson et al. (2011, p. 210-211) came to a similar conclusion, but argued that the distinction between the social and sustainable entrepreneurship is needed based on their different aims regarding the value creation. Sustainable entrepreneurship aims to achieve simultaneously social benefits, economical viable organizations and reduction of environmental degradation based on the 3BL concept (Kuckertz & Wagner, 2010, p. 524; Thompson et al., 2011, p. 210), whereas social entrepreneurship is driven through the social value creation (Austin et al., 2006, p. 2; Dacin et al., 2010, p. 42). Additionally all social missions are not sustainability-driven in their nature, whereas for example social entrepreneurs might be willing to struggle financial in order to achieve the ultimate social goal (Thompson et al., 2011, p. 211), which do not fulfill the requirements of balancing nature of value creation in sustainable entrepreneurship (Parrish, 2010, p. 512).
Despite the scarcity in the research field, sustainable entrepreneurship is commonly described through the innovative power of entrepreneurs leading the world into a more sustainable future (Pacheco et al., 2010, p. 464). Hall et al. (2010, p. 441) argued that the key role of entrepreneurs can be explained through the Panacea Hypothesis, where “green” innovative products and services will lead to an economic growth and positive development concerning the global social welfare. Also Cohen & Winn (2007, p. 30) argued that the real gains could be achieved by utilizing the innovative potential of entrepreneurs in order to resolve social and environmental challenges. On the other hand Hockerts & Wüstenhagen (2010) criticized this unilateral view, which takes only entrepreneurs into account when discussing the sustainable development through business entities. Authors claimed that the co-evolution of entrepreneurial and corporate activities is more likely to lead into sustainable outcomes than either of the two alone (Hockerts & Wüstenhagen, 2010, p. 482). We agree that their arguments are valid, but for the purpose of the study we follow the line of argumentation from Hall et al. (2010) and perceive sustainability to be achieved through entrepreneurs exploiting innovative products and services into the market. Although Hockerts & Wüstenhagen (2010, p. 489) argued in favor of a more co-evolutive approach, authors admitted that new entrants are the forerunners in the sustainable development and later followed by the market incumbents.

Above described novelty as well as the scattered theoretical assumptions in the sustainable entrepreneurship has lead to a vague and unclear use of definitions in the research development (Shepherd & Patzelt, 2011, p. 138; Thompson et al., 2011, p. 217). In table 3 we reviewed some definitions applied with sustainable entrepreneurship.

Table 3. Definitions of Sustainable Entrepreneurship.

<table>
<thead>
<tr>
<th>Source</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Dean &amp; McMullen, 2007, p. 58</td>
<td>“The process of discovering, evaluating, and exploiting economic opportunities that are present in market failures which detract from sustainability, including those that are environmentally relevant.”</td>
</tr>
<tr>
<td>Cohen &amp; Winn, 2007, p. 35</td>
<td>“How opportunities to bring into existence “future” goods and services are discovered, created, and exploited, by whom, and with what economic, psychological, social, and environmental consequences.”</td>
</tr>
<tr>
<td>Hockerts &amp; Wüstenhagen, 2010, p. 482</td>
<td>“The discovery and exploitation of economic opportunities through the generation of market disequilibria that initiate the transformation of a sector towards an environmentally and socially more sustainable state.”</td>
</tr>
<tr>
<td>Shepherd &amp; Patzelt, 2010, p. 142</td>
<td>“Sustainable entrepreneurship is focused on the preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is broadly construed to include economic and non-economic gains to individuals, the economy, and society.”</td>
</tr>
<tr>
<td>Pacheco et al., 2010, p. 471</td>
<td>“Discovery, creation, evaluation, and exploitation of opportunities to create future goods and services that is consistent with sustainable development goals.”</td>
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</tbody>
</table>
In their review Hall et al. (2010, p. 441) argued that only few studies have explored sustainable development through entrepreneurship, although sustainability issues create market failures and opportunities that are forming the backbone of entrepreneurship. In table 3 the presented definitions are corresponding to this inquiry. Similarly definitions correspond to the perceptions of entrepreneurial alertness (Kirzner, 1973) as well as to the entrepreneurial imagination and creative nature of entrepreneurs (Chiles et al., 2007). In their definition Cohen & Winn (2007, p. 35) argued that not only opportunities form sustainable entrepreneurship, rather it is a combination of opportunities and individuals who discover, create and exploit them. Accordingly we perceive that sustainable entrepreneurship is constructed through the nexus of lucrative opportunities and enterprising individuals (Venkataraman, 1997, p. 121). Opportunities in this context are not aiming for monetary value only, rather they aim to balance the value created through the 3BL (Cohen & Winn, 2007, p. 35; Hockerts & Wüstenhagen, 2010, p. 482; Shepherd & Patzelt, 2010, p. 142; Pacheco et al., 2010, p. 471). Based on this we expand our definition of entrepreneurial opportunity and define sustainability-oriented opportunities as “situations in which new goods, services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends, or means-ends relationships (Eckhardt & Shane, 2003, p. 336), and which simultaneously create value from an economic, social and ecological perspective” (Schlangen, 2009, p. 18).

In their seminal work Dean & McMullen (2007) argued that opportunities in the sustainable entrepreneurship context are a consequence of market failures. As discussed earlier opportunity discovery concerns correcting the market failure with creating new ways to achieve a given end, whereas supply or demand is known and the other one needs to be “discovered” (Sarasvathy et al., 2005, p. 151-153). These discovered opportunities are then exploited through new innovations or new combinations of resources (Landström et al., 2012, p. 1155). But according to Pacheco et al. (2010, p. 470) in order to achieve complete understanding of the sustainable entrepreneurship, the opportunity discovery theory needs to be synchronized with the opportunity creation theory. In the ideal economic systems opportunity discovery theory is adequate to explain the phenomenon, but sustainable entrepreneurship is often discouraged by institutional structures resulting a “green prison” dilemma (Pacheco et al., 2010, p. 465). Authors argued: “in the green prison, however, a creation approach is necessary to account for the ability of entrepreneurs to alter the economic institutions that drive incentives and sustainable behavior” (Pacheco et al., 2010, p. 470). Accordingly we perceive opportunity creation theory to be essential for our study and integrate it to represent sustainable entrepreneurship phenomenon together with the opportunity discovery theory.

Based on the “green prison” dilemma and our conventional entrepreneurship approach, we adopt in figure 5 entrepreneur and opportunity framework as discussed by Alvarez et al. (2013). The discovery process consists opportunities formed from exogenous shocks, which are discovered, evaluated and exploited by an entrepreneur (Alvarez et al., 2013, p. 303). The creation process is constructed from opportunities that are created endogenously and similarly evaluated as well as exploited by an entrepreneur (Alvarez et al., 2013, p. 303). Figure 5 presents our sustainable entrepreneurship framework as a two-stage process of forming and exploitation of opportunities (Alvarez et al., 2013), where the value is created based on the 3BL and sustainable development goals instead of concentrating only on monetary, environmental or social value. Accordingly we
define sustainable entrepreneurship as the discovery, creation, evaluation, and exploitation of opportunities to create future goods and services that is consistent with sustainable development goals; and the set of individuals, who discover, create, evaluate and exploit them (Pacheco et al., 2010, p. 471; Shane & Venkataraman, 2000, p. 218). Similar to our definitions of conventional, social and environmental entrepreneurship, the focus is on the sources of opportunities, the entrepreneur and the value creation (Venkataraman, 1997, p. 120).

![Figure 5. Sustainable Entrepreneurship Framework.](source)

Shane & Venkataraman (2000, p. 219) argued that lucrative opportunities are exploited through new innovations or new resource combinations. We follow similar approach and perceive sustainability-oriented opportunities to be exploited accordingly when entrepreneur is either discovering or creating opportunities. Similarly we follow the argumentation from Shane & Venkataraman (2000, p. 224) that the modes of exploitation can include a creation of a new firm, an existing firm or a hybrid mode. Hockerts & Wüstenhagen (2010, p. 489) came to a similar conclusion by arguing that “Emerging Davids” (new firms) and “Greening Goliaths” (existing firms) exploit opportunities in sustainable entrepreneurship context. Additionally we perceive that the exploitation can be done in a hybrid mode, where existing company establishes a subsidiary start-up or a spin-off firm. According to Shane & Venkataraman (2000, p. 224) the primary opportunity exploitation mode is an establishment of a new firm. Hockerts & Wüstenhagen (2010, p. 481) and York & Venkataraman (2010, p. 461) came to a similar conclusion by stating that the exploitation in the sustainable entrepreneurship context is driven through new firms and later imitated by existing companies. Here the exploitation decision is dependent on the uncertainty and can be declared through the Knightian uncertainty model (Knight, 1921). Hall et al. (2010, p. 442) argued that especially environmental and social related opportunities are uncertain in their nature, which leads to an opportunity exploitation through entrepreneurs and new firms. Similarly York & Venkataraman (2010, p. 454) declared that opportunities pursued by existing firms have higher opportunity costs and higher degree of uncertainty, which both are seen as unwelcome factors. Entrepreneurs on the other hand see better possibilities in uncertain situations for higher value creation and as a result aim to produce value out of uncertainty (York & Venkataraman, 2010, p. 454).
Value creation through the 3BL has in some extent existed as a vague concept (Parrish, 2010). Gibbs (2009, p. 65) referred to this as a “black box” phenomenon and argued that economic, social and environmental value needs further clarification than just statements of their existence. We aim to avoid the “black box” by incorporating typologies of social entrepreneurship into the sustainable entrepreneurship context. As discussed earlier social bricoleurs, constructionists and engineers vary in their value creation in terms of local, national and international dimensions (Smith & Stevens, 2010, p. 585; Zahra et al., 2009, p. 523). The similar principle can be applied regarding entrepreneur’s embeddedness to the local or more global stakeholders and resources (Smith & Stevens, 2010, p. 587). Schaltegger & Wagner (2011, p. 224) came to a similar conclusion by arguing that entrepreneur’s contribution to the sustainable development can be smaller or larger, but the challenge lies on achieving the highest possible effect.

To our understanding Hockerts & Wüstenhagen (2010) are the only ones studying sustainable entrepreneurship together with the typologies of social entrepreneurship. Authors claimed that social bricoleurs who are not keen to impact on wider markets should be considered as incrementally innovative, rather than fulfilling requirements related to the disruptive innovation and sustainable entrepreneurship (Hockerts & Wüstenhagen, 2010, p. 483-484). We criticize this approach to lack context-dependent factors. For example some rural areas in Finland suffer from the lack of heating suppliers and are forced to heat their apartments with oil or other non-environmental practices. Accordingly it created a market failure and a profitable opportunity for an entrepreneur to exploit. This lead to a locally disruptive innovation in a form of transferable heating system, which utilizes locally produced wood pellets (very low carbon dioxide emissions) as a raw material and created new employment opportunities for the local people. Thus we perceive sustainable entrepreneurship to be able to create local, national or global value through disruptive innovations in terms of economic, social and environmental dimensions. In line with typologies of social entrepreneurship, entrepreneurs in this context can be embedded with local resources and stakeholders or acting in a less embedded nature.

We have summarized our framework in figure 5 and defined the main concepts accordingly. Whereas the purpose of the study is to study motivations leading to the above-described process, in the following chapters we are discussing about these motivational factors in order to complete the theoretical framework.

2.4 Motivational Factors

By examining sustainable entrepreneurship only through lucrative opportunities and value creation cannot be considered to cover all aspects of the phenomenon. Cyert & March (1963, p. 9, cited in Zahra et al., 2009, p. 521) highlighted the existence of individual motivations related to the entrepreneurship by stating: “entrepreneurs, like anyone else, have a host of personal motives”. Previous studies related to these motivations have lead to a disappointing results mainly leading to several claims that human motivations are irrelevant when studying different forms of entrepreneurship and entrepreneurial processes (Shane et al., 2003, p. 269). Despite the controversies, we perceive human motivation to play a role in different forms of entrepreneurship and consider these motivations to have an effect on the decision-making related to process of forming and exploitation of opportunities.
In addition entrepreneurship and sustainable entrepreneurship phenomena are constructed through external motivations, which can be examined through the institutional theory (Scott, 2008). Shane et al. (2003, p. 258) argued that the phenomenon is not only driven through human motivated actions, while external factors also have influence to the process. To date the sustainable entrepreneurship research has only grasped the role of institutional motivations, although for example Shepherd & Patzelt (2011) stressed the feasibility of the institutional theory in the sustainability context considering both economic and non-economic benefits. Similarly Berrone et al. (2010) have highlighted the usefulness of the institutional theory when studying motivational patterns that go beyond economic goals only. Naturally the effect of entrepreneurial and institutional motivations is not always straightforward while mediators like business incubators have been studied to have an influence on entrepreneur as well as in the success of the entrepreneurial firm (Cooper, 1985). According to Pena (2002, p. 194) business incubators provide a support climate for entrepreneur, which either enhance the effect of entrepreneurial and institutional motivations or decrease it.

As previous studies have acknowledged that entrepreneurial and institutional motivations have impact on conventional and sustainable entrepreneurship context (Hall et al., 2010, p. 444), these motivational sources cannot be considered to function in a “bubble” (Shane et al., 2003, p. 258). For example Walley & Taylor (2002) defined in the ecopreneurship context that internal motivations and structural influences have interactional nature and it needs to be taken into account in order to fully understand the phenomenon. Similarly Shane et al. (2003, p. 275) argued that in the conventional entrepreneurship context the environmental conditions (e.g. institutional structures) have interaction with entrepreneurial motivations. Furthermore the interactional nature cannot be considered as a one-way process while the sustainability-oriented opportunity process derived through entrepreneurs have effects on institutional structures and the motivational nature of these institutions towards the entrepreneur (Pacheco et al., 2010).

In the following chapters we aim to complement our framework by including motivational factors into the phenomenon. We perceive that entrepreneur’s motivation to form and exploit opportunities derives from internal and external sources. Internal motivation is a result of a human motivation whereas external motivation is strongly influenced through the specific institutional setting that the entrepreneurs is functioning in. Finally these motivations have interrelated interaction that have further impact on motivations and is similarly required to adopt into the study in order to fully understand the phenomenon as well as to answer research questions.

2.4.1 Entrepreneurial Motivations

Entrepreneurial motivations are commonly linked with the profit and growth aspirations (Carland et al., 1984, p. 358), but the trend is developing towards covering wider perspective of entrepreneurial motivations going beyond these motivations (Parrish, 2010, p. 521). Amit et al. (2000, p. 120) conducted a study, which concluded that the money is not the only or even the most important motivational factor in the entrepreneurial process. Patzelt & Shepherd (2011) extended this view by defining altruism, individual’s motivation to improve welfare for another person, to be a motivational driver when recognizing “third-person opportunities”. Despite the transformation from a strict profit-oriented approach towards motivations beyond the
monetary value, the sustainable entrepreneurship research has only grasped the role of internal motivations in this context (Hall et al., 2010). Accordingly Parrish (2010) argued that entrepreneurs could be divided into two categories based on their motivation. The opportunity-driven entrepreneur is motivated by the profit, whereas the sustainability-driven entrepreneur is motivated by the possibility to contribute to the sustainable development and profitable firm can be considered as a side outcome (Parrish, 2010, p. 510). Similarly Kuckertz & Wagner (2010, p. 524) argued that individuals who are motivated by environmental and social concerns are willing to establish firms that generate sustainable value and support sustainable development. Although the described development has encouraged researchers to study motivations beyond the profit, Hall et al. (2010, p. 445) and Shepherd & Patzelt (2011, p. 17) called for studies related to the sustainable entrepreneurship and motivations from more psychological perspective.

Although research about entrepreneurial motivations in the sustainable entrepreneurship context is scarce, the conventional entrepreneurship research has explored several motivational sources and discussed their effects on the entrepreneurial behavior (Shane et al., 2003, p. 263). According to Shepherd & Patzelt (2011, p. 151) the conventional entrepreneurship approach sees motivations as a psychological approach, where “an entrepreneurial mechanism is intentional behavior - entrepreneurial action.” The research concerning why some individuals act or not act entrepreneurially has been divided into entrepreneurial cognition, the decision making of entrepreneurs, entrepreneurial motivations and entrepreneurial passion literature (Shepherd & Patzelt, 2011, p. 151-152). For the purpose of our study we adopt the entrepreneurial motivations (e.g. Baum & Locke, 2004; Shane et al., 2003) lens and study the suitability of conventional entrepreneurial motivations to the context of sustainable entrepreneurship (see figure 6). The chosen approach is supported by Shepherd & Patzelt (2011, p. 153) who argued that this human motivation approach opens up opportunities to widen up the perspective and can be considered as a valid choice in the sustainable entrepreneurship context.

![Figure 6. Entrepreneurial Motivations.](image)

In their review of entrepreneurial motivations Shane et al. (2003, p. 258) criticized the entrepreneurship research to focus solely on environmental characteristics and opportunities. Although authors praised the validity of the current approach, it commonly ignores perceptions about the human motivated behavior (Shane et al., 2003, p. 258). On the other hand, Shane & Venkataraman (2000, p. 218) criticized that the current research is bounded on discussions about the entrepreneur and entrepreneurial traits. We agree with the critical perceptions and aim to integrate both views in order to generate a more comprehensive approach to the subject. As we perceive entrepreneurship as well as sustainable entrepreneurship to be constructed through the nexus of lucrative opportunities and enterprising individuals (Venkataraman, 1997, p. 121), we follow the argumentation from Aldrich & Zimmer (1986, p. 3, cited in Shane et al., 2003, p. 258) who stated that entrepreneurial activity “can be conceptualized as a function of opportunity structures and motivated
entrepreneurs with access to resources.” Opportunity structures correspond to the opportunity forming and exploitation processes (Alvarez et al., 2013) whereas motivated entrepreneurs are constructed through their willingness and abilities to engage in the entrepreneurial process (Shane et al., 2003, p. 260). Accordingly we define entrepreneurial motivation as “motivation that is directed towards entrepreneurial goals (e.g., goals that involve the recognition and exploitation of business opportunities)” (Locke & Baum, 2007, p. 93).

Entrepreneurial motivations cannot be considered to function in a “bubble” while human actions related to entrepreneurship are a result of motivational and cognitive factors (Shane et al., 2003, p. 258). Locke & Baum (2007, p. 93) came to a similar conclusion by arguing that human actions consider motivation and cognition working hand-in-hand. Cognition is related to the question, “What is?” whereas motivation answers to the question “So what?” (Locke, 2000, p. 411). Cognitive factors are commonly known as knowledge, skills and abilities (KSAs) that entrepreneur can either possess or acquire if necessary (Shane et al., 2003, p. 275). Based on the conceptual model by Shane et al. (2003, p. 275) cognitive factors have influence on entrepreneurial activities together with motivations, but they do not have a direct influence on motivations or vice versa. Accordingly we acknowledge the influence of cognitive factors to the entrepreneurial process, but exclude KSA factors out of the scope of the study and merely concentrate on investigating the role of entrepreneurial motivations in the sustainable entrepreneurship context. Locke (2000, p. 414) supported this choice by arguing that although cognition and motivation cannot be separated in a real life, the choice of isolating these factors is valid for the purpose of a specialized study.

Drawn from several quantitative and qualitative studies, Shane et al. (2003) reviewed entrepreneurial motivations influencing various aspects in the entrepreneurial process. Authors’ view on entrepreneurship is similar to ours and therefore entrepreneurial motivations presented and described in table 4 are consistent with our research. These motivations can have similar or different effects on different stages of the entrepreneurial process (Shane et al., 2003, p. 275). In this context for example passion could play a bigger role in the opportunity formation phase whereas its motivational influence can be smaller in the opportunity exploitation phase or other motivational factors (e.g. need for independence) can replace original motivations in the later phases (Shane et al., 2003, p. 275). Still much of the current literature studies motivations as defined variables that have comprehensive effects throughout the entrepreneurial process, but according to Shane et al. (2003, p. 271) this dominant assumption lead to a faulty results. In our theoretical framework (see figure 8) we adopt a more unilateral approach, but by taking a two-stage opportunity (formation and exploitation) approach we leave the framework open for further interpretations of motivational effects in different stages.

Although entrepreneurial motivations have effects on the entrepreneurial processes, Locke & Baum (2007, p. 96) and Shane et al. (2003, p. 258) similarly highlighted that entrepreneurship is not only a result of a human action. In the next section we aim to complete our theoretical framework by integrating institutional factors, through the institutional theory, that have effects on the entrepreneur and motivation.
Table 4. Motivational Concepts (Shane et al., 2003).

<table>
<thead>
<tr>
<th>Concept</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need for Achievement (nAch)</td>
<td>Motivated by a high need for achieving a specific goal or complete a specific task. Requires responsibility from outcomes, individual skills and effort as well as responsibility from moderate risk.</td>
</tr>
<tr>
<td>Risk-Taking</td>
<td>Entrepreneurship includes risky and/or uncertain decision-making. Entrepreneurs have inclination to take moderate risks and higher risks can motivate them to pursue opportunities.</td>
</tr>
<tr>
<td>Ambiguity Tolerance</td>
<td>Uncertainty and unpredictability related to entrepreneurship increases ambiguities. Entrepreneurs have a higher tolerance for ambiguity and they view ambiguity rather attractive than threatening.</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>Individuals with internal locus of control believe that their actions have direct effect on the outcome. Individuals with external locus of control believe that the outcome is out of their control. Especially internal locus of control motivates individuals to pursue opportunities.</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>Self-efficacy concerns task-specific self-confidence, which motivates individual to pursue opportunities.</td>
</tr>
<tr>
<td>Goal Setting</td>
<td>Defined goals motivate individuals to put more effort and consequently achieve the desired outcomes.</td>
</tr>
<tr>
<td>Independence</td>
<td>Individuals who have a higher desire for independence are motivated to pursue opportunities on their own. Independence is seen as a necessity for entrepreneurial actions.</td>
</tr>
<tr>
<td>Drive</td>
<td>Individual’s willingness to put effort in terms of thinking and in taking the idea into the reality.</td>
</tr>
<tr>
<td>Passion</td>
<td>Most commonly referred as selfish love to work, which motivates individual to put extra effort when pursuing opportunities.</td>
</tr>
</tbody>
</table>

### 2.4.2 Institutional Motivations

The institutional theory is a very used concept among many researchers as it gives the researcher a theoretical lens through which the one is able to study a variety of domains including organizational theory, political sciences, institutional economics and entrepreneurship (Bruton et al., 2010, p. 421; DiMaggio & Powell, 1991). Furthermore the institutional theory is a very complex theory as it combines aspects from the political sciences, economics and sociology, and is not focused only a certain information system or phenomenon (Scott, 2008). The traditional concern regarding the institutional theory is how certain groups and organizations can better accompany the rules and norms of the institutional environment (Scott, 2007). These include sets of rules, agreements, interactions and taken-for-granted assumptions, which people in the organizations or inside the institutional environments are expected to follow (Bruton et al., 2010, p. 422; Scott, 2008, p. 51). Moreover the institutional environment is
consisting of these limiting rules, which comes from the governmental agencies, laws, regulations and different societal and cultural norms and beliefs (DiMaggio & Powell, 1991). Institutions are according to Hallett & Ventresca (2006, p. 213) “inhabited by people and their interactions”. Furthermore institutions are created in a form that they limit actors inhabiting these by setting some actions unacceptable or more unacceptable than others (Scott, 2008, p. 49-50).

The evolution of the institutional theory has its basis on the institutional thinking, which was used by some very well known philosophers like Karl Marx and Max Weber over a century ago. These both great minds based their understanding of the institutional thinking in a sociological form that is build from the normative factors including rules and norms together with the cognitive factors like belief systems and knowledge sharing (Scott, 2008, p. 12-18). Berger and Luckmann in 1966 claimed that this thinking lead to the development of the institutional theory (Scott, 2008, p. 19-20). The authors combined the previous work of researchers with the most up-to-date work of organizational scholars in order to develop their own framework where they could examine the social construction of routines, institutionalization and habits (Scott, 2008, p. 19-20). About a decade earlier Robert K. Merton connected the institutional studies with the organizational studies in 1950 (Scott, 2008, p. 19-20). Selznick who continued where Merton left and discovered that social actions are shaped and restricted by the context later developed this connection, where actions can exists as planned or unplanned (Scott, 2008, p. 20). Furthermore in 1970 researchers Simon & Silverman both continued and advanced the research about institutions and argued that cognitive frames, rules and value assumptions have an impact on individuals and how meanings are not only operating in people's minds, but are also accumulating from the institutional factors (Scott, 2008, p. 42). Moreover Simon & Silverman capsulized the environment as a “source of meanings for the members of organizations” (Scott, 2008, p. 42).

Further development of the institutional theory presented a concept called “new institutional theory”, which by the words of DiMaggio & Powell (1991) did not replace the “old” institutional theory, but it was more extending it. Moreover the authors argued, that the “new” and the “old” institutional theory must be seen as united and compelling as it is a necessity in order to understand the radical changes. The difference between the “old” and the “new” institutional theory is that the earlier one has focus on organizations, unexpected consequences and change, whereas the newer one is extending this to incorporate more dimensions as stability, unreflective actions and environment (DiMaggio & Powell, 1991).

For example Scott (2008) argued that institutions do not have an unambiguous definition due the diversity and complexity of the concept. However Scott (2008, p. 48) stated: “institutions are comprised of regulative, normative and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life”. Moreover institutions are “multifaceted, durable social structures made up of symbolic elements, social activities and material resources” (Scott, 2008, p. 48). Although as mentioned earlier the complexity of the concept, it should not be excluded that institutions are consisting of the previous characters, but also it is encompassing unified behaviors and objective resources (Scott, 2008, p. 49). Furthermore institutions are defined by Scott (2008, p. 49) to be not existing if they can be presented only in the verbal designations or as physical objects, while the
previous characters should be seen as bereft of subjective reality (Scott, 2008, p. 49). We acknowledge this in our study as we are going to examine people and their personal understandings, which are highly linked with their subjective reality.

Institutions constitute from different elements and forces, which together create the institutional environment. Because of the many different elements and forces affecting the institutional environment, there has been a request to divide these in a more understandable form (Scott, 2008, p. 50). Researchers from different fields have contributed to this inquiry including: sociology, organizational theory, economics and political sciences (Scott, 2008, p. 50). Furthermore the prevalent distribution has been agreed by researchers from all the previously mentioned fields to include three “elements” or “pillars”, which divide the institutional theory in: regulative pillar, normative pillar and cultural-cognitive pillar (Scott, 2008, p. 51). Moreover these three pillars exist in a continuum (Scott, 2008, p. 50) where the movement between the pillars occurs by the words of Hoffman (1997, p. 36, cited in Scott, 2008, p. 50) “from the conscious to the unconscious from legally enforced to the taken for granted”. In addition Scott (2008, p. 50) stated that these three pillars should be seen as contributing each other in the way that they are interdependent and are alternately reinforcing each other. Although the three pillars are reinforcing each other, we perceive that there must be a clear line between these three concepts and they need to be differentiated.

The regulative pillar is seen as the most related to economics as it represents the rational thinker model of behavior, which includes uniformity and sanctions (Bruton et al., 2010, p. 422). In this pillar the institutions control and guide the behavior of the actors by setting rules, monitoring and setting sanctions (Scott, 2008, p. 52). In other words from Bruton et al. (2010, p. 422), the regulative pillar consists of governmental legislations, industrial standards and agreements that shape the behavior of the actors inside this institutional environment. Furthermore Bruton et al. (2010, p. 422) connected new entrepreneurial firms being highly affected by the institutions and the regulative elements of it. Moreover it can be seen as these new firms are facing laws and regulations, which they need to accept, as these will shape and control the actions with or without the entrepreneurs and firms will (Bruton et al., 2010, p. 422). As a result the regulative process allows these actors (individuals and firms) to set these controlling rules and regulations, which are later monitored with the goal to inspect actors conformity to them and in order to manipulate the rewards and sanctions (Scott, 2008, p. 52-53). The process could be done through informal ways like shaming and shunning activities or it could be achieved with the use of highly formal activities as using the police or law (Scott, 2008, p. 52). In conclusion the regulative pillar includes the system of rules, which can be formal or informal and which can have different outcomes namely sanctions or rewards (Scott, 2008, p. 54). The process can be seen as supporting if we refer to the “rewards” (Scott, 2008, p. 54) and this can in our understanding seen as a motivating factor for one’s decision to establish a firm.

According to Scott (2008, p. 52) the regulative pillar is the most underscored from the three pillars of the institutional theory, while many scholars see the normative pillar as the most important. The normative pillar is presenting the more social dimensions than the regulative pillar (Bruton et al., 2010, p. 422-423). Moreover it is focusing on organizations’ and individuals’ behavior that is constructed from professional, social and organizational interactions (Bruton et al., 2010, p. 422-423). Furthermore like in the regulative pillar the controlling institutional forces accumulate from laws and
regulations, in normative the controlling forces come from norms and values of individuals and groups (Bruton et al., 2010, p. 423). Similar with the regulative pillar the institutions role is to steer and guide how the actors (people, firm) should do or act, the normative pillar is answering to more detailed questions of “what is considered as proper?” or “how things are to be done by the values?” (Bruton et al., 2010, p. 423). The process is described by Scott (2008, p. 53) to first setting ground rules that are later affecting individuals and organizations as they pursue to follow them. The normative pillar is really close to entrepreneurship as it is describing how a certain institutional environment has its norms and values, which can have supporting or discouraging influence to the new entrepreneurial firm (Bruton et al., 2010, p. 423). Moreover the more supporting normative institutions can help entrepreneurs in obtaining for example financing, but those environments having societal norms and values discouraging the entrepreneur can have huge impact on the overall development of the firm (Bruton et al., 2010, p. 423). In conclusion we see the normative pillar offering a lens where we can spot motivating factors for the opportunity forming and exploitation. Similarly we can examine how the values and norms of the institution accept the development of the sustainability-driven entrepreneurial firm. Furthermore according to our understanding this has been only studied before with this setting by Meek et al. (2010). The study found that state-level-incentives, environmental consumption norms and norms of family interdependence support establishment of a sustainability-driven entrepreneurial firm (Meek et al., 2010, p. 494).

The last and the third pillar is the cultural-cognitive pillar, which has its foundations from the cognitive turn in social sciences (DiMaggio & Powell, 1991). It concerns individual and subjective rules being limiting and guiding towards more appropriate beliefs (Scott, 2008, p. 57-58). Compared to the normative pillar, the cultural-cognitive pillar is focusing on more individual context and not in more general values and norms, which exist in groups of people (Scott, 2008, p. 57). This individual context includes language, culture, and already known and taken-for-granted behavior of the individuals (Bruton et al., 2010, p. 423). Furthermore Scott (2008, p. 57) explained that in the cultural-cognitive pillar the external cultural frameworks shape internal explanations, which in our case would show how the societies accept the sustainable entrepreneurship and the operating values behind it. Similarly it could reveal how governments and other institutional actors could develop a more supporting environment for the sustainable entrepreneurship. Now we can connect the cultural-cognitive pillar with the two other pillars of regulative and normative and state that the pillars provide a tool through which we can examine the motivational forces towards sustainable entrepreneurship, coming from external but subjective sources (Scott, 2008). Finally we can state that there is a clear difference between the three pillars, but as Javernick-Will & Scott (2010, p. 548) stated the three pillars are overlapping in the real world and are not as clear as in the theory.

Institutions are controlling and affecting people's behavior (Scott, 2008, p. 48) and are therefore important to include into the study as we are trying to find the motivations of the individuals, which are consisted of external and in our case institutional factors. Furthermore institutions are constructed from social factors, which include actions from the past or actions that are going to take place in the future (Scott, 2008, p. 51). This is also an important aspect for our study about motivations, which are created from past experiences, but also about what are the expectations in the future. Moreover this enhances our study purpose to include the institutional theory in our study. One
argument is also that the institutional theory has an ability to work in multiple levels, which include individuals, organizations and society (Scott, 2008, p. 49-50). Because of this it is very beneficial for us to study the motivations through the institutional theory and include multiple levels, as three institutional pillars, in this study (Scott, 2008, p. 49-50).

Although it is very beneficial to include multiple levels, the institutional theory is suffering from the diffusion from the top-down analysis (Scott, 2008, p. 190-191). To take this in consideration we need to understand the situations where for example regulative factors such as laws and rules can exceed the social factors as for example behavior and manners (Scott, 2008, p. 190-191). This is related to standardization, which is seen as a problem in the firm’s sustainable development as they are too locked in the regional and governmental regulations (Cargill, 2011), while they are unable to control their own actions towards more innovative solutions. Moreover Javernick-Will & Scott (2010, p. 548) argued that the three pillars of the institutional theory exist individually, but they are overlapping. Keeping the three pillars separate and preventing these also to overlap with the entrepreneurial motivations is going to be a challenge for us. However we perceive overlapping nature as manageable as well as not harmful for our study.

As visualized in figure 7 entrepreneurship is in close connection with the institutional development as institutions offer support in terms of governmental regulations, society norms and culture, which is enhancing the sustainability-oriented opportunity forming and exploitations process by offering the process a more fruitful environment (Bruton et al., 2010). Furthermore the arising use of the institutional theory in the entrepreneurship research is presented by Barley & Tolbert (1997, p. 94) to be a consequence of the dissatisfaction towards common theories, which are respecting more the efficiencies as a source of motivation and excluding the social forces as a source of organizational behavior. Moreover we can argue for the relevance of the institutional theory in this study as it is explained by Bruton et al. (2010, p. 423) that insufficient institutions can harm the new firm development and in the other hand too regulative institutions can hinder the possibility for a new firm to innovate and develop faster. One example of this in connection with the sustainable entrepreneurship is explained by Pacheco et al. (2010) that too strict regulations towards sustainability can lock the companies in “green prisons”, which stifle the entrepreneurial opportunity process. By understanding the institutional forces we can better understand the entrepreneurial motivations (Bruton et al., 2010, p. 423).

As a conclusion for this chapter, our study’s purpose is to identify the motivations, which support the sustainable entrepreneurship. We want to examine the motivating external forces by using the institutional theory and the three pillars namely: regulative, normative and cultural-cognitive (see figure 7). The institutional forces are identified to be in close relation with the entrepreneur’s decision, concerning forming and exploitation of sustainability-oriented opportunities, by supporting or hindering them.
(Aldrich, 1990; Bruton et al., 2010). The theory gives the researcher a lens by through he or she can examine the survival and justification of an organizational behavior, which include culture, social environment, history, regulations, manners and traditions (Bruton et al., 2010). Furthermore the theory is valid in explaining how the social values and norms affect the development of sustainable actions, for example “green” actions (Ball & Craig, 2010, p. 284-285). Moreover as we are studying sustainability and are including environmental perspective in our the institutional theory is valid when exploring the environmental management in the firms and when searching underlying explanations of why certain actions are conducted in the firms without a direct economic return (Berrone et al., 2010). Finally by including the institutional theory in our study we adopt a very adaptable and multiple perspective lenses through which we can explore the external motivations leading to the forming and exploitation of sustainability-oriented opportunities.

2.5 Sustainability-driven Entrepreneurial Firms

The exploitation process of opportunities in the entrepreneurship as well as in the sustainable entrepreneurship context examines the opportunity exploitation through a new firm, an existing firm and/or a combination of both (Hockerts & Wüstenhagen, 2010, p. 481; Schaltegger & Wagner, 2011, p. 226; Shane & Venkataraman, 2000, p. 224). Researchers and several studies are highlighting the role of new firms and start-ups in the development of regional areas as well as global economy, but there is a clear inconsistency in defining these new firms in theory and practice (Luger & Koo, 2005, p. 17). Similarly academic field is inconsistent with the organizational life-cycle models, where some approaches adopt size and age perspective while others see the organizational life-cycle to be a more complex structure including for example strategic and organizational changes (Ferreira et al., 2011, p. 253). Luger & Koo (2005, p. 19) argued that the literature of start-ups is constructed through three-dimensional approaches: “new, active and independent.” Accordingly start-ups can be defined as a business entity “which did not exist before during a given time period (new), which starts hiring at least one paid employee during the given time period (active), and which is neither a subsidiary nor a branch of an existing firm (independent)” (Luger & Koo, 2005, p. 19). We perceive this definition to illustrate the most important dimensions of start-ups and accordingly adopt it to the study as well as to present the characteristics of our empirical sample.

Whereas perceptions on start-ups are still in some extent inconsistent, the characteristical differences between small businesses and entrepreneurial firms are clearer. Carland et al. (1984, p. 358) defined small businesses as personally operated firms, which are not engaging in innovative behavior or cannot be defined as dominant players in the industry. On the other hand entrepreneurial firms are similarly personally operated business entities, which engage themselves into the Schumpeterian innovative behavior and their main goals are profit and growth (Carland et al., 1984, p. 358). Runyan et al. (2008) expanded the perspective through a study of small business and entrepreneurial orientation. Small business owners are emotionally attached to the firm and the purpose of the firm is to provide family income as well as to further enable business owner’s personal goals (Runyan et al., 2008, p. 569). Entrepreneurial firms adopt entrepreneurial orientation (EO) into the firm’s activities, which has positive effects to the firm overall performance (Runyan et al., 2008, p. 567; Wiklund et al., 2009, p. 367).
EO has been recognized as an individual or a firm level phenomenon, which refers to the innovative, risk-taking and proactive behavior (Covin & Slevin, 1991, p. 7; Wiklund et al., 2009, p. 359). Lumpkin & Dess (1996, p. 151) expanded EO to cover five dimensional view of innovative, risk-taking, proactive, autonomous and competitive aggressivity related behavior. As both approaches share innovativeness, risk-taking and proactiveness in their conceptual models, we similarly adopt these to present the characteristics of an entrepreneurial firm. Innovation is related to the frequent product or service innovations, risk-taking refers to the bold actions taken in the face of uncertainty and proactiveness highlights the proactive approach to competition (Covin & Slevin, 1991, p. 10). These characteristics are similarly helping new firms to survive in the market until issues of survival has been satisfied (Lumpkin & Dess, 1996, p. 162-163). Entrepreneurial firms face many challenges concerning survival especially in the beginning of their lifecycle (Bessant & Tidd, 2007, p. 414). According to Cressy (2006, p. 103) the highest probability for failure is during the firm’s first 18-24 months. The failure can occur based on several reasons including firm’s human and financial capital (Cressy, 2006). In this context we perceive appropriate financial capital and self-sustained nature to represent characteristic of an entrepreneurial firm. Bessant & Tidd (2007, p. 430) came to a similar conclusion by arguing that adequate financial resources are crucial in order to firm to survive.

Above discussed entrepreneurial firms are playing a key role in the development of regional areas as well as global economy (Luger & Koo, 2005, p. 17), but according to Hockerts & Wüsthenagen (2010) sustainability-driven entrepreneurial firms are additionally contributing to the global sustainable development. Authors define these “Emerging Davids” as “small firms that tend to be recently founded and have a relatively small market share and explicitly aim at providing not just economic value, but also social and commercial value” (Hockerts & Wüsthenagen, 2010, p. 483). Schaltegger & Wagner (2011, p. 226) described “sustainable entrepreneurship - defined in a narrow sense - deals with very innovative company start-up supplying environmentally and/or socially beneficial products and services with the potential to conquer a larger part of the market.” Accordingly we define sustainability-driven entrepreneurial firm as a new, active, independent, market-oriented and personality driven business entity form, which is self-sustained, growth and entrepreneurial oriented in its nature of creating sustainable value by means of break-through environmentally or socially beneficial market or institutional innovations (Carland et al., 1984, p. 358; Covin & Slevin, 1991, p. 7; Hockerts & Wüsthenagen, 2010, p. 483; Luger & Koo, 2005, p. 19; Runyan et al., 2008, p. 583; Schaltegger & Wagner, 2011, p. 226; Wiklund et al., 2009, p. 359).

More precisely defined, “new” refers to firms that are under 11 years old that according to the Runyan et al. (2008, p. 583) similarly corresponds to the probable existence of entrepreneurial orientation. As sustainability-driven entrepreneurial firms are commonly small and have a small market share (Hockerts & Wüsthenagen, 2010, p. 483), we extend active to reflect firms that that trade goods or services and cannot be considered as “paper” firms (Luger & Koo, 2005, p. 18). Firms are independent, which means that they are neither a subsidiary nor a branch of an already existing firm (Luger & Koo, 2005, p. 19). Growth ambitions, personality driven and self-sustained nature of the firm link with the entrepreneurial firm definition by Carland et al. (1984, p. 358). Entrepreneurial orientation highlights the existence of innovative, risk-taking and proactive behavior of the firm (Covin & Slevin, 1991, p. 7; Wiklund et al., 2009, p.
359), while sustainable value corresponds to the value created in terms of 3BL dimensions (Elkington, 1999, p. 397).

2.6 Theoretical Framework Summary

Our literature review has been consistently constructed a theoretical framework (figure 8) for the purpose of the study. The aim of the theoretical framework is to guide the study further and operate as a foundation for the data analysis in the later phase. Although we are studying the sustainable entrepreneurship phenomenon, the major share of theoretical foundations derives from the conventional entrepreneurship literature. Both theoretical approaches enhance similar opportunity processes, but exceptions can be found from the primary exploitation mode and value creation based on 3BL. In our theoretical framework we adopt a unilateral view concerning the motivational effects towards the entrepreneur and perceive same motivations having an equal effect throughout the process. By conducting the study, we are able to either confirm this or forced to revise the framework based on our data analysis.

![Figure 8. Framework of Motivations in the Sustainable Entrepreneurship.](image-url)
3 Methodology
The third chapter concentrates on the research methodology, which guided the research throughout the process. First we elaborate our reflections about the choice of the literature and state our philosophical standpoints from the ontological and epistemological perspective. Further on we provide our research approach and design as well as our practical methodological instruments in terms of data collection, interview design and participant selection approaches. Finally we conclude by presenting relevant quality criteria’s, ethical considerations and data analysis strategies.

3.1 Reflection on the Choice of the Literature
The purpose of the literature review is to present the previous studies related to our research area and to summarize, evaluate and describe this literature in order to build up a picture of the current research in this area (Boote & Beile, 2005). It is a researchers clarification of the relevancy of the topic, which connects the already existing theory into the study and also help the researcher to understand the nature of the study (Boote & Beile, 2005). Researcher does not need to include all related studies into the literature review, but moreover include only the most relevant ones. Patel & Davidson (2011, p. 69) explained that by using only the supporting studies is not recommended rather the one should include all points of the topic and area in order to have a diverse literature review. We were pursuing to follow this argument and included many previous studies and aspects into our literature review. This was essential for our study, as we had already developed a certain mindset about the related topics during our studies, which could have led us into a path dependency following the already known theories. However according to Eisenhardt (1989, p. 544) the researcher needs to challenge the existing mindset in order to get more trustful results, as the researcher is more open to include diverse sources of information and by this raise the internal validity of the research. We definitely faced challenges when clarifying our research as previous studies about the sustainable entrepreneurship included a huge variety of different aspects. However we aimed to include the most common perspectives and used them in order to define ours. This forced us to use many different sources, which is in some cases not supported procedure, but as a conclusion it was a necessity for our research.

In our literature search we have tried to focus on the objectivity and validity of the sources as according to Patel & Davidson (2011, p. 69) it is an important manner when pursuing to conduct a quality research. Our chosen theories of entrepreneurship, sustainability, sustainable development, sustainable entrepreneurship, start-ups, entrepreneurial firms entrepreneurial motivations and institutional theory were all highly discussed and there were no difficulties in finding relevant research papers. This led us to choose between more relevant and not so relevant sources for our study. We pursued to do this by including the most traditional ones together with the most up-to-date ones, so we could take into account the development of the certain research area.

In our research we used books, scientific articles and other sources including governmental statistics and credible newspapers. However we always focused on using high quality and trustful sources. We used only peer-reviewed articles and tried to include the most recently published ones, while similarly concentrating on high impact journals. Moreover we also used only books, which were cited many times and that were written by notable researchers in the area. Although some of the books,
respectively, were quite old and did not include the most recent information of the field, they were all notable publications and have highly contributed to the research field by developing elements that are still used today. Our intention in using books and articles was to combine more established and popular ideas from the well-known books into the relevant and mostly up-to-date articles.

In our literature search we had a good starting point as we had used most of the articles during our studies. The most used sources were from the Umeå University library’s database as well as Google Scholar. We also found related previous student theses’ from the DIVA database. Our search keywords were based mostly on the theories we are using in this study. We were also following the sources and reference lists used in the scientific articles and previous studies. Some of the keywords we used: sustainability, sustainable development, social entrepreneurship, environmental entrepreneurship, sustainable start-ups, entrepreneurship, entrepreneurial motivations, institutional theory, and opportunity process.

In conclusion we pursued to use as little secondary referencing as possible as it can lead to misunderstandings. However due to the limited time and resources, if we found secondary references that were essential for our study and could not be excluded, we were forced to include this in order to meet our research purpose. Moreover the literature search has been conducted in order to find and define the most important aspects related to our study and this is seen as most significant purpose, when analyzing the data. For the fruitfulness of our study we as researchers also pursued to build our own understanding of the matter and avoided to be locked in previous studies and acted more in the exploratory way in this literature search and theory building.

3.2 Research Philosophy

In the following two sections we are discussing and describing our research philosophy related to our study. More detailed discussion concentrates on our ontological viewpoints from the nature of the reality and our epistemological approach concerning what we perceive as an acceptable knowledge.

3.2.1 Ontology

 Philosophical stance in terms of ontology is determined by how researcher sees the nature of the reality, whether consisting of objective entities with their own reality or entities that are socially constructed by the social actors around them (Bryman & Bell, 2015, p. 32; Creswell, 2007, p. 16-17; Saunders et al., 2012, p. 130). In other words can the reality be seen as a concrete structure with social entities existing independently from the social actors or is the reality a projection of human imagination where social entities are existing only because they are imagined and constructed by the social actors (Bryman & Bell, 2015, p. 32; Morgan & Smirlich, 1980, p. 492). These two opposing aspects of ontology are namely objectivism and constructionism (subjectivism), which both are used philosophical stances by many researchers in producing valid knowledge (Bryman & Bell, 2015, p. 32; Saunders et al., 2012, p. 130). The objectivistic view of reality implies that social entities exist independently and create their own meaningful reality (Saunders et al., 2012, p. 130), which is resistant to the external social
phenomenons, but social entities are also unable to affect the phenomenon itself (Bryman & Bell, 2015, p. 32). Authors refer organizations as examples who are being inhabited by individuals following the predetermined rules, values, and missions and where individuals are divided hierarchically. Therefore organizations are creating a closed reality and they are seen as a constraining force, which acts on and controls its members (Bryman & Bell, 2015, p. 32).

The opposite aspect for objectivism is constructionism, which sees social phenomenons affecting social entities and social phenomenons being shaped by perceptions as well as consequent actions of social actors (Saunders et al., 2012, p. 131-132). Thus objective ontological stance is considering social entities constructing their own external reality, while in constructionism social entities are affected and shaped by the social actors (Morgan & Smircich, 1980, p. 494). The reality is constantly being affected and shaped (Morgan & Smircich, 1980, p. 494), as a result, developing a more subjective and shared reality (Bryman & Bell, 2015, p. 33; Saunders et al., 2012, p. 132). Bryman & Bell (2015, p. 33) gave also an example of constructionism in a form of organization. Authors argue that organizations have rules, but these rules are not rigorously imposed (Bryman & Bell, 2015, p. 33). However these rules are not seen as restrictive, but more like pre-existing characteristic that is not creating the primary reality as in the objective stance (Bryman & Bell, 2015, p. 33). In this context the reality is more open and constantly changing through the actors inhabiting it (Bryman & Bell, 2015, p. 33).

The ontological stance for this study is constructionism as we are conducting research among people and examine their opinions, which are tied into their previous experiences as well as in their understanding. According to our research questions we are studying what entrepreneurial and institutional motivations are constructing sustainable entrepreneurship and what are the interactions between these motivational sources, the constructionism would support our goal and give us a possibility to examine the phenomenon and how social actors are constantly shaping them. We also see institutions as an external force, which are shaping entrepreneurs understanding, but we also see how entrepreneur’s individual motivations are shaping the external reality. As Raskin (2008, p. 13) pointed out that in the subjective ontology the knowledge comes from “evolved perspective or point of view”, which goes in line with our research about motivations. It is also argued by Blaikie (2007) that the external world only exists because of our thought about it and incorporating this we can link entrepreneurial/institutional motivations and their interactions being external as well as existing because of the entrepreneur’s thought. Due to these reasons we need a more subjective study in order to dig into these forces.

### 3.2.2 Epistemology

While the ontological stance is focusing on “what is out there”, the epistemological stance is answering the question of “what is considered as acceptable knowledge” (Saunders et al., 2012, p. 132-134). The epistemology concerns whether the social world can or should be studied according to the same rules and principles used in the natural sciences (Bryman & Bell, 2015, p. 26). There can be delimited four philosophical premises in the epistemology namely positivism, realism, interpretivism (Bryman & Bell, 2015, p. 27-30) and pragmatism (Saunders et al., 2012, p. 130).
The positivist philosophical stance is conducted when the researcher is collecting data from an observable phenomenon and is seeking to find causal relations as well as regularities in order to generate law-like generalizations (Gill & Johnson, 2010). Therefore positivism is mostly used in the natural sciences, where researcher plays a neutral role and does not have an impact on the possible outcome of the research (Saunders et al., 2012, p. 134). A positivist researcher sees the reality as an external and consisting of different objective phenomenons, which all have their individual reality regardless of the researchers’ beliefs or perspectives (Hudson & Ozanne, 1988, p. 511-512). The reality can now be studied by observing these objective phenomenons without being influenced by pre-existing theories and by focusing on developing accurate methodology in order to test the hypotheses again in the future (Bryman & Bell, 2015, p. 27-28). Therefore as we state our ontological perspective to be subjective in its nature, we cannot agree with the neutral behavior of the positivist researcher and how it sees the reality being developed from objective phenomenons and how it agrees observations being greater than the theory (Bryman & Bell, 2015, p. 28; Saunders et al., 2012, p. 134-135). Furthermore we cannot agree with the context-free generalizability of the positivist research as it seeks to generate results that fit in infinite number of phenomenons, people, settings and times (Hudson & Ozanne, 1988, p. 511).

As positivism is conducted more in the natural sciences due to its objective view of reality, the interpretivism has taken the opposite view of the reality as it sees the social world separate from the objective world and how it should then be studied in different manner (Bryman & Bell, 2011, p. 16-17). Interpretivism sets its stance at the other end of the continuum as positivism (Carson et al., 2011, p. 5). Interpretivist researchers also argue that by adapting a generalized “law-like” research perspective in the social sciences you lost totally the richness of the complex social world (Saunders et al., 2012, p. 137). The acquired knowledge in this epistemological stance is more socially constructed than objectively determined (Carson et al., 2001, p. 5). For the interpretivist researcher it is important to understand the difference when conducting a research among people or objects (Bryman & Bell, 2011, p. 18; Carson et al., 2001, p. 5; Saunders et al., 2012, p. 137). As we are going to study entrepreneurial and institutional motivations that are based on opinions and understandings of entrepreneurs, one could state our epistemological stance to be congruent and suitable for interpretivism view of the knowledge. However we see the world as socially constructed, but we do not agree with it totally, as we think that the objective “real world” has an impact and can sometimes shape the social world. Our philosophical stance also differs with the radical insight of interpretivism as it sees the reality unpredicted, complex and impossible to conduct a study with fixed research design (Hudson & Ozanne, 1988, p. 512).

In the pragmatist research the concepts have only meanings if they are relevant and if they are supporting the actions (Saunders et al., 2012, p. 130). Researchers who hold this view of the knowledge are focusing more into the research outcomes rather than the antecedent conditions, which relate more to positivism (Creswell, 2007, p. 22). In other words the researcher follows the continua of the research by answering the research question with the best suitable philosophical position in that point (Saunders et al., 2012, p. 130). This gives the researcher a freedom, if the direct philosophical stance is not determined by the research question to use the best suitable position in that point (Saunders et al., 2012, p. 130). The pragmatist position is widely used in mixed method studies where they combine qualitative and quantitative approaches in order to answer the research question (Saunders et al., 2012, p. 130). However we as researchers see our
study to be best conducted by using only a qualitative approach and we can therefore state that pragmatism is too “loose” position for us.

Realism is a philosophical stance, which is closely related to positivism as they both see the reality as an external and objective (Saunders et al., 2012, p. 136), but they both also address that the natural and social sciences can both be used in evaluating and understanding the data (Bryman & Bell, 2015, p. 29). The realist thinks that the knowledge people have about their social world is affecting their individual behavior unlike in positivism, where the social world is experienced apart from the knowledge and they do not affect each other (May, 2001, p. 12). The realist approach can be divided in two concepts namely direct realism and critical realism, which together give a clearer meaning of the position of realism (Saunders et al., 2012, p. 136). Direct realism states that what you see is what really is the reality (Saunders et al., 2012, p. 136). However a critical realist would argue that what we see and experience is sensations of the real reality and not the “real” things (Saunders et al., 2012, p. 136). Critical realism takes into account that our senses can deceive us and due to that we can be influenced about the view of the direct reality (Saunders et al., 2012, p. 136). Saunders et al. (2012, p. 136) provided a good example of the distinction of these two concepts by explaining that a critical realist sees the reality and afterwards processes it mentally in order to build up the understanding compared to a direct realist who accepts that what one experiences is the reality without mentally evaluating it. This view of the direct realism is more used in the natural sciences, because of its ability to perform accurate and controlled measures in closed systems (Easton, 2010, p. 120). However when conducting a research in social sciences like us, one studies individual’s opinions, understandings and motives, and it is very difficult to do it with accurate and controlled measures in closed systems. Therefore we choose our epistemological standpoint to be a critical realist, as we believe the world can be socially constructed, but sometimes destroyed as the “real” world breaks in (Easton, 2010, p. 120). It shapes our understanding of the complex phenomenon by affecting our stories through of how we try to understand them (Easton, 2010, p. 120). Although Saunders et al. (2012, p. 163) argued for the jointly existence of the qualitative study and interpretivism, but also state the possible use of realism, we will include this subjective interpretivism view in our realistic epistemology.

One of the goals for this research is to understand institutions effect on the sustainable entrepreneurship as an external source of motivation. Herein we can separate the entrepreneur’s personal internal motivations from the external ones and can therefore incorporate Easton’s (2010, p. 120) phrase of “real world breaks through” as institutions in this context. Easton (2002) also argued that business case studies often fails to adopt a certain epistemological or ontological stance, although these studies often move close to the critical realism as you can find from Eisenhardt (1989) and Yin (2003). However critical realism is seen as an acceptable and used way in the theory development, which supports our purpose to generate more overall understanding of the entrepreneurial and institutional motivations as well as their interactions behind the sustainable entrepreneurship (Järvensivu & Törmöros, 2010, p. 100). Parrish (2010, p. 513-514) argued that it is very suitable to use critical realism when studying sustainable entrepreneurship as the information is tied in relations between the entrepreneur and environment, which includes internal and external factors. As our ontological stance is subjective and we are going to perform a case study, the critical realism gives us a good epistemological stance as it allows us to use a causal language in order to describe the
world (Easton, 2010, p. 119). Easton (2002) also argued that critical realism can be justified in any study regardless of the situation, but only if it includes in depth research of why things are as they are. In the entrepreneurial opportunity process, the opportunity discovery and creation can be divided as discovery being more objective as there exists some prior knowledge of demand or supply and creation being more subjective as there is no prior knowledge existing (Pacheco et al., 2010, p. 470). As we have adopted similar approach by combining opportunity discovery and creation theories into the study, we follow argumentation from Pacheco et al. (2010, p. 470) that the study is accordingly best performed with the use of critical realism when both theories are integrated into the study.

3.3 Research Approach

For a researcher it is important to make clear of how aware you are about the theories you are planning to include in the research in order to design your research project (Saunders et al., 2012, p. 143). This is normally divided between two approaches depending of your reasoning: deductive and inductive (Ghauri & Grønhaug, 2010, p. 15: Saunders et al., 2012, p. 143). These dichotomy ways of research approaches helps the researcher to work with the theory and empirical data (Patel & Davidson, 2012, p. 23). Similarly it divides the research approach as deduction that generates hypotheses from already existing theory and induction that generates theory from observations (Ghauri & Grønhaug, 2010, p. 16).

In deductive reasoning the “conclusions are drawn from known premises or something known as true” (Ghauri & Grønhaug, 2010, p. 15). In other words from Ketokivi & Mantere (2010, p. 316): “deductive reasoning occurs when the conclusion is derived logically from a set of premises, the conclusion being true when all the premises are true”. Therefore a researcher who chooses a deductive approach is said to follow the “path of evidence” (Patel & Davidson, 2011, p. 23), which constitutes a very linear research form that has a logic sequence (Bryman & Bell, 2011, p. 23). Here the researcher deduces a hypothesis from the theory and exposes it for empirical study in order to test the hypothesis (Bryman & Bell, 2011, p. 23) and in order to find causal relationships between variables and concepts (Saunders et al., 2012, p. 145). However a deductive research is not a success only when results corroborate the theory, but also when the research makes deteriorating results (Saunders et al., 2012, p. 145).

An alternative approach for deductive reasoning is inductive, which is not testing the already existing theory, but is vice versa generating theory from observations and findings (Bryman & Bell, 2011, p. 25). Inductive research is also stated by Patel & Davidson (2011, p. 23) to follow the “path of discovery”, which allows the research to move more freely and avoid being locked in the previous theory. An inductive researcher would argue that deduction does not allow the researcher to construct a flexible methodology, because it limits the method in a rigid manner and does only allow one explanation for the examined phenomena (Saunders et al., 2012, p. 146). In induction the researcher makes observations of the phenomenon and by testing it creates alternative explanations, where the aim is to generate a new theory (Bryman & Bell, 2011, p. 25-26).

The following two concepts divide the research approach in half, but still both are said to suffer from limitations as deduction being too strict with the theory testing and
induction being unable to generate valid theories with any amount of empirical data gathered (Bryman & Bell, 2011, p. 27). As we are examining entrepreneur’s individual motivations towards sustainability-oriented opportunity process by using already existing knowledge of entrepreneurial motivations from Shane et al. (2003), we are kind of controlled to use deductive reasoning. However the entrepreneurial motivations have been studied before, but it has being studied in a more profit-oriented context and it lacks research related to the phenomenon from the context of the 3BL (Hall et al., 2010). We will also include here the external perspective and look the phenomenon through the three institutional pillars. We do not know exact of what kind of institutional factors we are going to discover, so we draw patterns from the data in order to generate theory-like results. Similarly we are examining interactions between entrepreneurial and institutional motivations in different stages of the sustainability-oriented opportunity process. This research approach goes hand in hand with inductive reasoning as we are going to generate advanced knowledge from observations.

Our goal in this study is not to generate a new theory about the institutional motivations, nor is only to test the already existing motivations for entrepreneurship in the sustainable entrepreneurship context. In order to answer our research questions we need both reasoning aspects of inductive and deductive to find the entrepreneurial and institutional motivations including their interactive intensities. However a third concept is proposed to overcome both of the deductive and inductive reasoning problems and to combine the good sides from both (Bryman & Bell, 2011, p. 27). The third proposed reasoning is called abductive, which is characterized as follows: “abduction starts with a puzzle or surprise and then seeks to explain it” (Bryman & Bell, 2012, p. 27). Although the abductive reasoning combines characters from the inductive and deductive approach, it is still not a pure mix of these two, but has some special characteristics of its own (Saunders et al., 2012, p. 147). The abductive approach is not generating theory from the data nor is testing the already existing theory, but it is moving back and forth between these two approaches (deductive and inductive) and combining them (Suddaby, 2006, p. 639). We are going to conduct a multiple case study and need to evaluate our observations continuously as we are going to combine entrepreneurial and institutional motivations, which require moving back and forth constantly. This is stated to be possible with the abductive reasoning as it relates to the philosophical idea of “hermeneutic circle”, through which we see and evaluate the data continuously in order to build a dialogue between observations and our pre-understandings (Bryman & Bell, 2011, p. 27). Since our research approach includes both theory testing and knowledge generation from observations, we will agree our research approach as abductive. We have chosen to combine our results about the institutional motivations in already existing knowledge of entrepreneurial motivations. By this we are able to examine the both internal and external motivations and draw more exact conclusions of what are the motivations as well as interactions behind the sustainability-oriented opportunity process. This approach offers us a better insight into the phenomenon as it allows us to examine the unknown and the unexpected, which goes in line with the statement from Bryman & Bell (2012, p. 27) about abduction seeking to explain the “puzzle and surprise”. Ghauri & Grønhaug (2010, p. 15) similarly supported abductive approach as it is considered to be a good choice when conducting a case study. Nevertheless, inductive approach is more used in the case studies and is argued to be a better fit for us and that deductive approach could be also used in theory testing (Saunders et al., 2012, p. 163). However, the abductive reasoning allows researcher to choose the best explanation from the pool of other explanations (Mantere & Ketokivi, 2013, p. 72),
which helps us to pick the most suitable and overall explanation for the studied phenomenon.

Before starting a research it is recommended and useful to think about the objectives and the purpose that delimits the questions you try to answer in the research (Saunders et al., 2012, p. 170). It is also very important to consider the relation between the strategy and purpose in order to recognize and define the nature of your study namely: exploratory, explanatory or descriptive (Saunders et al., 2012, p. 171-172). The exploratory research is focused to develop an understanding of the meaning of “what is happening” in order to gain new insight of the phenomenon (Saunders et al., 2012, p. 171) without previous understanding of it (David & Sutton, 2011, p. 11). It is useful when the researcher tries to clarify the understanding of the phenomenon and is unsure of the precise nature of the certain phenomenon (Saunders et al., 2009, p. 139). The second type of a research is explanatory, which compared to exploratory, demands the researcher to understand the effect and the cause in order to explain what is the phenomenon (David & Sutton, 2011, p. 11). When trying to explain this phenomenon researcher needs to jointly use descriptive mapping and trying to explain the relations in this phenomenon (David & Sutton, 2011, p. 11). Finally the descriptive type of research concerns that researcher aims to form an accurate profile of the objective being studied (Saunders et al., 2009, p. 140). Compared to exploratory and explanatory, here the researcher is more describing the situation and “what is going on” in order to fill the gaps in the research and by expanding the understanding of the phenomenon (David & Sutton, 2011, p. 11).

In our study we are not focused on developing direct results or aiming to generate new theory, of how entrepreneurial and institutional motivations as well as their interactions affect entrepreneur’s decision to form and exploit sustainability-oriented opportunities. We are pursuing to identify patterns and build up understanding of the phenomenon. Similarly our study’s purpose is to determine of what kind of institutional factors contribute towards to a more sustainable entrepreneurship and can there be spotted any patterns, which makes our thesis highly potential for a dynamic exploratory research. We also see our research area as under researched and can therefore state our nature of the study to be exploratory. According to Yin (2009, p. 10) the choice of an exploratory research supports the researcher to form the research question in a form of “what” and this enables the researcher to choose between several methods. Moreover this study is pursuing to answer not only the question of “what”, but to extend the study to grasp into a more in depth understanding of the phenomenon. Blackburn & Kovalainen (2009, p. 130) argued that when conducting a research in the entrepreneurship context you should not only focus on positivist approaches, but also use a critical exploratory mechanism, which will help the researcher better to explore the underlying economic, social and environmental phenomenons. We can argue that our research questions go way beyond the explanations, as we are unable to explain the relations between variables, as these variables are still partially unknown. Ghaouri & Grønhaug (2010, p. 56) used relevant example concerning the “detective and suspect” paradox, where detector examines the case with multiple suspects and constructs the suspicion about the main suspect as new information emerges. Comparing to that, we rather see us as these detectors/researchers who explore the unknown nature of the suspects/variables and through this try to develop our understanding of what causes the phenomenon. To accomplish this we need to be flexible as new sources of information can emerge and these can change the study as well as the direction of solutions noticeably (Ghaouri & Grønhaug, 2010, p. 56). Due
to this we believe that with the use of flexible exploratory approach we are more able to adapt to the possibly changing environment as well as to answer our research questions and follow our purpose.

3.4 Research Design

The research design can be separated to the three different forms namely quantitative, qualitative and mixed method design (Saunders et al., 2012, p. 59). Choosing a certain design for the research depends on the nature of the research and how it connects the theory and the study, but also how the researcher states the philosophical standpoints in terms of ontology and epistemology (Bryman & Bell, 2011, p. 26). The simplest and rawest way to differentiate the quantitative and qualitative research design is that the quantitative is generating numeric data whereas the qualitative is generating non-numeric data (Saunders et al., 2012, p. 161). Further combining these two methods into one and by using both numeric and non-numeric data you have chosen a mixed method design (Saunders et al., 2012, p. 164). However this is a very raw diversification between these methods and cannot be viewed blindly as the distinction between the concepts is highly problematic and narrow (Saunders et al., 2012, p. 161).

More specifically the quantitative research is mostly concerned of the objective entities that can be researched in a very strict and controlled order (Saunders et al., 2012, p. 162). In addition it is also often associated with the positivist research philosophy, which is mostly used in the natural sciences (Bryman & Bell, 2011, p. 26). Then again a qualitative research focuses on a more subjective form of data as it is examining mostly people and their opinions, which are hard to study with very structural method as the data lies in people’s personal thinking of the phenomenon (Saunders et al., 2012, p. 163). Moreover the qualitative design is mostly related to the social sciences and has an inductive approach, compared to the quantitative design, which mostly has a deductive approach (Bryman & Bell, 2011, p. 26-27). Hirsjärvi et al. (2010, p. 135) explained that the extremes of the quantitative and qualitative design exist in a continuum where they are overlapping and fulfilling each other. The qualitative research is more related to interpretivism (Saunders et al., 2012, p. 163), but the critical realism is highly novel and coherent philosophical stance when conducting a qualitative case study, which goes in line with our research (Easton, 2010, p. 118). However we are going to study the entrepreneur’s thoughts and experiences about the institutional motivations towards sustainable entrepreneurship and combine the entrepreneurial motivations in the study. Here we will use inductive and deductive elements, which one could argue are a good fit for mixed method study. Furthermore when studying people and their understandings it cannot be fully answered by measuring it with numbers and objective factors (Saunders et al., 2012, p. 161). Due to these factors and by the factors that our research is dealing with people and their understandings, which makes the study very unstructured in nature, it is most beneficial to conduct a study with the qualitative design. However as we have stated our research approach to be abductive, which is mostly related to the mixed method studies (Bryman & Bell, 2011, p. 27). According to Yin (2009) qualitative design with abductive approach works well in this context as we are testing the already existing theory of entrepreneurial motivations and combine it with the influence of institutional motivations.

Our study problem needs to be pursued by an exploratory research approach as the problem includes population variables and their relations that are unknown, which is
best explored through a qualitative research (Creswell, 2007, p. 39-40). Our aim is to examine the relations between our sample participants’ meanings of the phenomenon and by this construct a framework. Here our data collection is not fully standardized as the questions for our sample participants can alter depending on the situation and how we get the richening answer for our study. Saunders et al. (2012, p. 163) stated that the qualitative study is not aiming for the physical access to the sample participants and information, but more aiming to build the understanding of the phenomenon in order to have a cognitive access to the data. We will conduct this study based on our own philosophical assumptions and will bring in our own worldview, which yields for a qualitative study (Creswell, 2007, p. 15). Furthermore in a good qualitative research the researcher will use the one's own philosophical assumptions and worldview, but in order to shape the study the one will use interpretive and theoretical frameworks (Creswell, 2007, p. 15). Our final form of the study should include voices of our sample participants, the reflexivity of us as researchers and a complex interpretation and description of our research problem, which according to Creswell (2007, p. 37) contributes to the existing literature or is calling for new actions.

We can also adhere that our research design is cross-sectional, which means that the data is collected at the certain point in the time with the goal to find patterns between the cases (Cooper & Schindler, 2011, p. 142). This is an imperative for our research as we have a limited amount of time and money that are not enough in order to conduct a more time and money consuming longitudinal research (Saunders et al., 2009, p. 155).

The qualitative study can be implement by using multiple strategies, if the chosen strategy goes in line with the chosen ontological and epistemological stance (Saunders et al., 2012, p. 163). These different qualitative strategies are namely narrative research, phenomenology, grounded theory, ethnography and case study (Creswell, 2007, p. 10). Furthermore the five approaches differ in terms of what kind of the problem, focus, unit of analysis, data collection, data analysis and the final report is (Creswell, 2007, p. 78-79). In our research the interview questions are not aimed to gain narrative story like answers. We do not also start with a ready established theoretical framework, which is suggested in grounded theory or have no match with the ethnography or action based phenomenology (Creswell, 2007, p. 9-10; Saunders et al., 2012, p. 179-188). However as we are conducting a qualitative exploratory study, the most used way of designing this is using the case study method (Yin, 2009, p. 10). Furthermore as our research questions are based only on the question of “what”, the exploratory research is justified and it allows the use of case study design (Ghauri & Grønhaug, 2010, p. 110). Case study also allows us to examine the unknown variables and formulating the understanding by using different cases, which helps us to answer our research questions. The case study techniques and characteristics can be related to the same techniques as examining history, but it adds two distinct information acquiring techniques: straight observations about the phenomenon and interviews of the persons involved in this phenomenon (Yin, 2009, p. 11). The strictest diversification between the case study and other research is that in the case study the one focuses in a bounded situation or environment over time with the use of in depth data collection, which involves multiple different data sources (observations, interviews etc.) (Bryman & Bell, 2015, p. 68; Creswell, 2007, p. 73). Finally case studies have many different aims. For example the researcher can test the already existing theory (Yin, 2009, p. 38), create a new theory from observations (Creswell, 2007, p. 74) and provide descriptions of the phenomenon (Eisenhardt, 1989, p. 535).
The case study is about studying a phenomenon by exploring this through one or multiple cases in a bounded system (Creswell, 2007, p. 73). Single case studies can be or are beneficial to be conducted when the study is testing a well-formulated theory, tries to understand an extreme or unique phenomenon, testing a previously inaccessible phenomenon or when studying a same single case in different points in time (Yin, 2009, p. 47-49). As a comparison, when the single case study focuses on defining the actual case for example a certain firm, the multiple case studies will test whether the findings are replicable across different cases like for example different firms (Saunders et al., 2012, p. 180).

In our study we want to interview our sample entrepreneurs in order to find the underlying motivations, which have driven them to establish a new firm with the sustainable value output. In order to examine this we need to conduct a multiple case study, which is seen more compelling than a single case study (Yin, 2009, p. 53). It provides a wider view of the phenomenon and also according to Shkedi (2005, p. 193-194) more generalized results. We are expecting to gain generalized results about these motivations in order to meet our purpose of the thesis where we are not only aiming to give a contribution for existing literature, but to generate replicable results in order to help, for example governments, in developing better environment for the sustainable entrepreneurship. Furthermore as we are testing what entrepreneurial motivations are supporting the sustainable entrepreneurship, we are similarly going to test the already known knowledge, but are still open for new possible outcomes. This kind of “theory testing” is supported by Yin (2009, p. 53-54) to be the most beneficial when also examining the observations (institutional motivations) and combining the both tactics together. Later on we will aim to develop and extend the theoretical framework, which we will use as a vehicle to generalize our study results (Yin, 2009, p. 54).

We see the knowledge of the phenomenon tight in our sample entrepreneurial firms and due to this we will conduct an embedded multiple case study (Yin, 2009, p. 59). Here we mean that we need to conduct interviews for the different entrepreneurs and after that we are going to evaluate these individually, and later pursuing to find patterns. In contrast (see figure 9) if we were conducting a holistic multiple case study we would interview all entrepreneurs, for example at the same time, and then find more overall opinion without understanding the individual entrepreneurs (cases) as separate (Yin, 2009, p. 59). From the figure 9 we can see the difference between a multiple and single case study, but also what is the difference when using a holistic or embedded approach. In conclusion with the use of multiple case study we are more likely to develop a better knowledge (Eisenhardt, 1989, p. 537). Similarly we can achieve easier replicated results and we can eliminate the alternative explanations and gain more overall view of the phenomenon (Yin, 1994, p. 109-110). Multiple cases also allow us to use broader set of exploration regarding the research questions and theoretical elaboration, which makes our whole study more robust (Eisenhardt & Graebner, 2007, p. 27). Furthermore we can argue for our choice of multiple case study design as Hall et al. (2010) stated that the research field about the sustainable entrepreneurship being new, which goes in line with the argument presented within several scientific sources (e.g. Yin, 2009) claiming that it is very beneficial to conduct a multiple case study when studying a new field. Moreover as we are hoping to find both generalized results as well as differences from our data, the multiple case study is best supporting us in this task. Furthermore our sample size is relatively small and we believe that in order to find only consistent results do not
generate as fruitful information for the study where better output will be achieved by also including the evaluation about the differences between the samples.

However, the multiple case study seems to fit perfectly into our research, we need to take into consideration not only the strengths of multiple case studies, but also the weaknesses. As we are relying in our study on the empirical evidence gained from interviews, we are going to gain a lot of in-depth information. We need to be careful so we do not try to include all of this information in our theory making, which could lead our theory/new knowledge being formed to be too complex and hard to understand (Eisenhardt & Graebner, 2007, p. 547). Moreover, we are going to build our study from a bottom-up perspective, which means that we are going to use a specific information in order to generate more generalized understandings (Eisenhardt & Graebner, 2007, p. 547). Here we need to be precise about how generalizable our results really are and understand if we end up describing very idiosyncratic phenomenon (Eisenhardt & Graebner, 2007, p. 547).

![Figure 9. Basic Types of Designs for Case Studies (Yin, 2009, p. 46).](image)

### 3.5 Data Collection

The data used in a research can be divided between a primary data and secondary data (Saunders et al., 2012, p. 304). A primary data is used when the researcher gathers new data specifically for the purpose of the research (Saunders et al., 2012, p. 304). On the other hand, the secondary data is gathered for a different purpose from the research at hand and which is then used as supporting information for the analysis (Bryman & Bell, 2011, p. 312). Utilizing the secondary data is commonly easier in the way that it is more...
often cheaper and does not need much of practical arrangements (travelling, interviews etc.) in order to have access to the data (Saunders et al., 2012, p. 317). However for us choosing between the primary and secondary data was based on the reason that we see our research area and the setting we are conducting the study as new, so we are forced to gather only primary data in order to trustfully answer our research questions. Because of this novel setting we are going to use source triangulation (Creswell, 1998) in order to get more in depth information of the phenomenon. The triangulation is method where researcher is using more than a one technique in the data collection, for example interviews and questionnaires (Saunders et al., 2012, p. 179). In our study, the triangulation is formed by collecting main primary data from interviewed entrepreneurs, supported by interviews with experts and finally the conducted ranking related to entrepreneurial motivations drawn from the conventional entrepreneurship research. This triangulation raises the validity of the study and by the use of only primary it offers better insights from the phenomenon.

There is an ongoing development in the literature about what kind of qualitative data is at hand right now (Creswell, 2003). However Creswell (2007, p. 129) continued arguing that these all forms of qualitative data can be expressed in the four groups namely: observations, interviews, documents and audiovisual materials. When designing the data collection of the study we need to take into consideration our philosophical stances and research approach. As we have stated our philosophical stance to be a critical realism and we are going to have an exploratory research approach, we can expect now to have a more unconstructed data collection compared to if we had a more positivist and explanatory research stances (Saunders et al., 2012, p. 162-163). We also want to get more personal answers including participants understanding, motivations and attitudes, which we think are very fruitful for our study purpose. Due to this we need a communication based data collection and saw that interviews would serve best this idea of ours (Cooper & Schindler, 2011, p. 240). Our sample entrepreneurs have self-experienced the sustainability-oriented opportunity forming and exploitation process and we want to get individual as well as very indebt opinions about the motivating factors behind this process.

In a qualitative research interviews are a used way in data collection (Saunders et al., 2009, p. 320), as it demands a real interaction between the researcher and the sample participant (Ghauri & Grønhaug, 2010, p. 125). Moreover interviews are used to construct a purposefully conversation between two or more people, where the interviewer is asking concise and unambiguous questions from the interviewed person and pursuing to explore the answers further (Saunders et al., 2012, p. 372). The type of an interview that is chosen for the study must go in line with the research question, research design and research strategy (Saunders et al., 2012, p. 376). We also need to take into consideration our sample participants background in terms of the expectations and values (Ghauri & Grønhaug, 2010, p. 125). The interview design can be divided in the three types according to their formality and structure typology, namely structured interview, unstructured interview and semi-structured interview (Ghauri & Grønhaug, 2010, p. 126: Saunders et al., 2012, p. 374-375). In a structured interview the researcher has standard format and predetermined questions, which he or she tries to find answers (Saunders et al., 2012, p. 374) and which are easily combined with quantitative measures and statistical methods (Ghauri & Grønhaug, 2010, p. 126). On the other hand unstructured interviews give the respondent almost a full liberty to discuss and share opinions of the phenomenon studied (Ghauri & Grønhaug, 2010, p. 126). Unstructured
interviews are mostly answering questions of “how” and “why” (Ghauri & Grønhaug, 2010, p. 126) as structured interviews, which already know the variables, are focusing on “what” in order to make sense of the phenomenon (Saunders et al., 2012, p. 375-376). The semi-structured interviews are giving the interviewed person a freedom to answer, but it still differs from the unstructured interview as the researcher is steering the discussion with predetermined questions or subject areas (Ghauri & Grønhaug, 2010, p. 126).

As we previously stated that our philosophical standpoints are asking for more unstructured data collection and by us stating that our research to be exploratory in nature, we can agree with Saunders et al. (2012, p. 377) statement about how exploratory studies should be conducted with semi-structured interviews. This goes in line with our study purpose, as we want to find out what really motivates these entrepreneurs and how different sources of motivations interact with each other. Also we need to take into consideration that by using a more constructed interviews could lead the interviewed person only evaluating the asked variables, like in our case motivations, without giving the real opinion (Ghauri & Grønhaug, 2010, p. 126). However, in our study we are exploring a known phenomenon of sustainable entrepreneurship, but we are unknown what motivations constitute and support this phenomenon to become fulfilled. Moreover, we are pursuing to understand better this phenomenon and how the complex variables (entrepreneurial and institutional motivations) interact together in the process of forming and exploiting sustainability-oriented opportunities. From the interviews we are aiming to get entrepreneurs’ insights as well as opinions of these motivations and through discussions we try to build a better understanding of interactions between the variables. In order us to succeed in this we need to conduct a semi-structured interviews where we leave space for the interviewed person to explain and amplify his or her opinions, but we also need to be able to steer the conversation into the direction, which we see as the most rich for our study purpose.

We can do this by having a list of questions or topics we wish to cover. This is called as an interview guide and it works as a common tool for a researcher providing common questions, but also allowing the freedom for the interviewed person to adapt to the situation and build his answers more personally (Ghauri & Grønhaug, 2010, p. 127).

Furthermore, we are going to gather additional primary data with interviews and from people who are seen as experts in the sustainable entrepreneurship area and who might give us good opinions and insights regarding the phenomenon. These experts are expected to raise the validity of our study by offering more generalized opinions, which are not related to one firm only. Moreover, we are going to also gather additional primary data from the interviewed entrepreneurs about entrepreneurial motivations by asking them to rank in scale 1-5 of how important they see these motivations when forming and exploiting sustainability-oriented opportunities. Moreover the ranking is done after the interview as the interviewed person is more in the subject and it can be also raising new ideas, which were not discussed earlier. We are gathering these entrepreneurial motivations based on the existing knowledge and the aim is to get generalized results between interviewed persons. This is going to be conducted in structured manner, as it does not leave space for discussions.
3.6 Interview Design

The first step for a researcher in preparing the interview process is to “(1) analyze your research problem, (2) understand what information you really need to have from an interviewee, and (3) see who would be able to provide you with that information” (Ghauri & Grønhaug, 2010, p. 127). Moreover we need to take into consideration the exploratory nature of our research as we are studying the relations between variables (Saunders et al., 2012, p. 172). In our research we are going to examine the variables of entrepreneurial and institutional motivations related to the process of forming and exploiting sustainability-oriented opportunities.

Interview is a purposefully conversation between two people and it is including questions, answers and discussions (Saunders et al., 2012, p. 372). Our interviews with entrepreneurs and experts are formed from 5 blocks, which can be found from appendix 1 and 2. The interviews with experts follow the similar path of questions and constructs that we are using in our interviews with entrepreneurs, but the third and fourth block is constructed differently. Despite the differences we use similar questions in order to assist our data analysis with more comparable data between different cases.

The first block of the entrepreneur interview is namely the introduction, where we present our study background and ourselves. Here we want to get our interviewed person familiar with the topic and be sure that they understand our research purpose. We want also adhere that we are examining only the firm that they have established and the motivating factors purely related to that firm. We felt that this could be a problem and the answers could easily slip to include other scenarios than the ones we are investigating. However we decided to remind our interviewed persons in every section of the interview process about this, if we see it necessary. Furthermore we are going to explain why we want to record the interview and how we are going to protect the anonymity of the interviewed person or the firm. We are going to also raise up some ethical considerations, including person’s willingness to answer only for the questions he or she wants and that there is a possibility to stop the interview, if the interviewed person feels like it.

The second block is about the interviewed person and the firm. Here we want to know more about the interviewed person's background including education, previous work experience and is there any previous experience related to entrepreneurship. We also ask the interviewed person to briefly explain their firm’s operative actions: how they operate and what kind of services or products they produce. Furthermore in this section we want to evaluate the firms fit into our sample and if the company is fulfilling the dimensions we presented in our theoretical framework (see chapter 2.5). Finally we want to see what is the interviewee’s perception on sustainability and sustainable entrepreneurship. We want to be sure that the interviewed person is at the same level with our research about what sustainability is.

In the third and fourth block we grasp more into our topic and start to investigate the motivating factors. We divided these two blocks by the time frame of the opportunity process: opportunity forming and exploitation (see figure 8). In the third block we concentrate our questions and discussion on the motivating factors in the opportunity forming process. Similarly the fourth part is investigating the motivations, but in the opportunity exploitation process, which follows the opportunity forming process. By
dividing the questions in these two forms we hope to get better insights about the
different motivations at the different points in the opportunity process. In both blocks
we start with more overall and open questions and from there narrow it down, still
keeping the interview in a semi-structured form, in order to get deeper insight of the
phenomenon.

Finally in the fifth block, we conclude our interview and discuss about the topic. Here
we try to connect and find the interactions between entrepreneurial and institutional
motivations. In this block we will also ask our interviewed persons to rank the
entrepreneurial motivations (see appendix 5). Moreover the ranking is done with the
Likert scale where individually every motivation is scaled alone and there is no
comparison between which motivation is better or worse (Bryman, 2008, p. 146). It is a
multiple indicator set of attitudes to a specific set (Bryman, 2008, p. 146). The scoring
will be set as 1 being the least motivating and 5 being a high motivating factor. By this
we mean that there is no ranking between the different motivations and for example all
motivations can score the value 3, so the one motivation can score in the scale of 1-5,
whatever number, despite the score of other variables. Finally the reason why we
choose to conduct this ranking at the end is that we believe that our interviewed persons
have build better thinking of the whole topic of our research and are in a better position
when evaluating the entrepreneurial motivations as well as the ranking can function as
an additional source for further discussions. In addition we are not requesting experts to
rank the entrepreneurial motivations at the end of the interview, because entrepreneurial
motivations are individually constructed (Shane et al., 2003) and we perceive these to
be difficult to evaluate in a more detailed by other external actors.

3.7 Participant Selection and Participants

In every research where you are unable to investigate the whole researched population,
you need to set a sample and sample size (Saunders et al., 2012, p. 260). When it comes
to a participant selection, the researcher needs to decide what method to use in the
selection process. In our study we are going to use purposeful sampling, which is
mostly used in a qualitative research (Creswell, 2007, p. 125). This means that we have
a possibility to decide the most suitable participants and sites into the research in order
to make it to answer our research purpose (Creswell, 2007, p. 125). This is also
beneficial for us as we are facing a limited time and resources that restrict us to use all
the possible data we could get (Saunders et al., 2012, p. 258). Moreover it is very
suitable for us to use the purposeful sampling as we have defined our sample and our
study setting to include certain factors, which are presented in chapter 3.6.

Generalizability is difficult in case studies (Saunders et al., 2012, p. 265). However, the
higher number of cases, the lower is the probability to have misleading results
(Saunders et al., 2012, p. 265). Nevertheless the sample size can vary a lot in case
studies and the generalizability depends on the topic as well as the phenomenon being
studied (Creswell, 2013, p. 101-102).

In our study we are going to limit our sample size according to our time and money,
while still gathering enough data to purposefully answer our research questions
following our theoretical framework. Furthermore in order to maintain the anonymity of
our study participants, we are going to code the answers so there cannot be drawn any
connection to a specific firm.
Our study is conducted in Finland as we are both from there and can better work with the native language with our sample participants. Moreover as we argued in the introduction chapter, the interest in conducting this kind of study in Finland is also due to the special circumstances concerning the sustainable entrepreneurship that Finland has at the moment. Furthermore our access to the sample and the data is the most convenient in Finland due to the existing networks, connections, limited time and resources that we have. Moreover due to the limited time and money we are going to conduct the interviews in our home regions at Eastern and Western Finland, which both offer a variety of firms that are suitable for the study. We did our participant search mainly using Google, with the search words of: sustainability, start-up, green and eco. Furthermore we both used our networks in Finland. We contacted potential firms and entrepreneurs by phone or email. First we explained our study and asked, if they were interested to take part in it. After this we sent a confirmation email (see appendix 3), where we asked interviewee’s suggestion for the interview time, including also a confirmation letter from our supervisor (see appendix 4). Moreover in this confirmation email we explained our study purpose and topic more in detailed, so the interviewed persons would have a better understanding and then provide more in depth discussions during the interview.

We chose our sample participants to have two main characteristics. The first is that the firm must according to our definition in chapter 2.5 be seen as a new firm. The second dimension is that the firm must create sustainable value through a product or service. Furthermore we are going to present more dimensions for our sample participants, but these are going to be examined through the interview questions. From these selected entrepreneurs we are going to conduct an interview, which consists of semi-structured and more structured part. We are also going to gather data from persons who we see as experts of this field, but are not currently entrepreneurs themselves. These persons have seen and worked with many sustainability-driven entrepreneurs and are consisted of individuals working as university researchers and business incubators. In this context we executed a similar participant process as with the entrepreneurs. Due to the limited resources we searched these experts through Google and used our personal networks in Finland in order to find relevant informants. After the search phase, we contacted experts either through phone or email and agreed the interview time as well as location with them.

The objective for the number of our sample size for entrepreneurs was 10 and for experts 4. This was divided in half according the location of Western (5 entrepreneurs and 2 experts) and Eastern Finland (5 entrepreneurs and 2 experts). We did not consider the comparability of Eastern and Western Finland as a problem, because we saw these two areas as similar in this context. We do not consider this as a problem, but we will take into account the possible differences when examining the data. Moreover if there can be spotted clear differences between the findings from Western and Eastern Finland, we will take these into consideration in our data analysis. However, due to the circumstances we succeeded to collect data from 9 entrepreneurs and 3 experts in total. We saw this number of 12 interviews suitable for our study and from planned total 14 interviews we were prepared to lose some, without having a major effect in our study. More interviews would have needed more time, which we did not have. Finally the structure of the interview (see chapter 3.6) is similar compared to our primary sample in order to enhance the comparability.
3.8 Quality Criteria

The following three sections aim to reveal our perceptions about the valid quality criteria concerning our study. Discussion concentrates on generalizability, validity and reliability perspectives respectively.

3.8.1 Generalizability

Generalizability from case studies has been argued and discussed subject by many authors. The underlying reason has been whether it is possible to come up with generalized results from the case studies as it is conducted with a relatively small sample size and mostly using a qualitative data (Falk & Guenther, 2007, p. 2). In order to define generalizability you need first to be aware of your research validity, as generalizability has been defined being the external validity of the research (Saunders et al., 2009, p. 158). The meaning here is whether the study findings are feasible to use in different conditions, such as with different companies and to end up with same kind of results (Saunders et al., 2009, p. 158). In other words from Grbich (1999, p. 66) “the usefulness of one set of findings in explaining other similar situations”. Due to this we see our study to be possible to transfer into the similar context. The purpose of our study is to build a case where we can contribute to already existing theory as in our case to contribute and possibly extend our framework. We will interview a certain amount of entrepreneurs as well as experts having distinct experiences and accordingly going to build a more overall understanding of the motivations, which drives the sustainable entrepreneurship. We believe that our sample size limits our study's generalizability, but according to Yin (2009, p. 39) in this case we can build a more of an analytic generalization where we can identify connections between our study results, framework and theory. The study could be used, if not as a generalized information of the phenomenon, but more of a tool building understanding, which has the focus on particular set of firms and how these link with the existing theory and framework. In order us to keep our study as generalizable as possible we need to take into consideration our methods and how we gather the data. Yin (2009, p. 38-39) and Easton (2010, p. 127) pointed out the importance of the theoretical framework and how researchers should be theoretically oriented in the case study research in order the research to develop generalized results. We have used already existing theory when we have developed our theoretical framework and we will also evaluate and connect the data we collect with already existing theories.

3.8.2 Validity

When conducting a research it is very beneficial to take into consideration the validity in order to make a high quality research (Bryman & Bell, 2012, p. 394). Validity of the research can be divided in two forms namely: internal and external validity (Saunders et al., 2009, p. 372). The internal validity refers to the situation when the research is demonstrating “the causal relationship between two variables” (Saunders et al., 2012, p. 193). We will include this by pursuing to connect the motivations from both internal and external sources in liaison, where they enhance the sustainability-oriented opportunity process. The external validity and in other words transferability is concerned whether the research findings are generalized in other situations with the same settings. We will pursue to succeed in this, however we understand our research
limitations and state our purpose to be more to developing an understanding of the phenomenon. In our analysis we try to find mutual connections between the cases and draw more overall results, but our research findings are limited in specific institutional context. It is possible to conduct the exactly corresponding research with the same research design in the future, but the findings are not transferable between different institutional contexts. However, we consider the transferability of our study to be limited, but existing as repeating the study in the different institutional context is possible if the context dependent factors, for example different laws, are taken in consideration. It is argued whether the case studies can produce generalized results, because of the limitations in the external reliability (Saunders et al., 2012, p. 193). However our main contribution comes from the framework of motivations in sustainable entrepreneurship (see figure 13), which can be used as a basis for the future research in a different context. Here we see that the applicability of the theories we used and the data we collected is corresponding the purpose of the study and allow them to be tested in a different context (Saunders et al., 2012; Yin, 2003).

The strength of our research is that we use triangulation where we gather primary data with the use of three different data collection methods from two different data sources namely entrepreneurs and experts. This was done through interviews with entrepreneurs, interviews with experts and collected ranking from entrepreneurs. Moreover we conducted a test interview with a test person and us in order to test our questions and their correspondence to our research purpose. We evaluated the test by estimating of how good the questionnaires are producing rich data for our study and how the questions corresponds with the theoretical framework in order to include all parts of it. Finally, after the interviews were conducted we ensured our understanding of the data by sending it back to the interviewed persons and asking them to check, if it corresponds what he or she was answering.

3.8.3 Reliability

Reliability is concerned about, if the data collection techniques and analytic practices can produce coherent results in different occasions (Saunders et al., 2012, p. 192). In our study we are using cases and conducting interviews. For this reason, we can see our external validity being limited in producing generalized results, which could be only achieved by conducting our research in similar context This needs to be taken into consideration when valuing the reliability of this study as it is difficult to achieve in the same context. However, the study is explaining the underlying phenomenon in the specific context and can therefore be seen producing reliable results in this specific context. In our opinion the semi-structured interviews are favoring our research, but are very difficult to be conducted exactly the same in a different context as it is much about two people communicating and building the understanding (Saunders et al., 2009, p. 327). However we conducted the research by following the structure and methods of our thesis. In addition we followed suggestions from Saunders et al. (2009, p. 328) and stated clearly our methodological choices as well as our data collection methods in order to enhance the reliability and replicability. According to Yin (2009, p. 45) reliability in case studies is in some extent problematic, but by arguing clearly our methodological choices we aimed to overcome these problems and provide foundations for the future research to either repeat or follow similar process. We believe that our research shows reliable results about the subject and is presenting results that are in line with the study purpose.
3.9 Ethical Considerations

In a qualitative study the researcher faces many ethical considerations, especially in the data collection and analysis phases, regardless of the research approach (Yin, 2007, p. 141). The research ethics are referring to the agreed behavior of the researcher, which guides the researcher to conduct the research in the way it respects and values the rights of the ones who become subjects of the study, or who are affected by it (Saunders et al., 2012, p. 226). Moreover the researcher should plan and conduct the research in the way that avoids causing harm for the sample participants (Saunders et al., 2012, p. 237). Bryman & Bell (2011, p. 128) also stated that by taking into consideration the ethical issues related to the study you could improve the quality of the study, which should be a valid and crucial aim for every researcher. We see ethical issues very important to take into consideration in order to keep the study quality and being able to answer research questions trustfully. We will build guidelines for our study and try to pursue these the whole way when working with the study.

There are many ethical principles of what researcher needs to take into consideration (Saunders et al., 2012, p. 230). We can only argue for those, which in our opinion has an effect to our study and our participants. In order to keep the quality of the research Saunders et al. (2012, p. 231) argued that the researcher need to act openly and truthfully. We can address this as we are going to inform our sample participants about our research subject and idea of the sampling beforehand. By this we want to be sure that our participants are in the same page with our research purpose and we are not engaged in any deception about our study nature (Creswell, 2007, p. 142). We will also be open and explain the concepts so the true meaning of our study is clear for our participants. Moreover to adhere the truthfulness of our study we will revise our collected data with our participants so we can avoid misunderstandings between the sample participants and us. Furthermore in order to ensure the quality of our interview we are going to test the interview before conducting it with our sample participants. This is suggested by Saunders et al. (2009, p. 328) to be beneficial as we can test the questions and time of our interview and has a chance to fix it if problems or upgradable things are detected. For our test participant we are going to use our known entrepreneur who has established a firm and who we see as a suitable person for giving us valid answers and later offering us comments about the functioning of the interview.

We will also pursue to respect all participants and firms who are involved in this research by evaluating our acting towards them, but also the data or results gathered is evaluated in terms of if they could cause any harm for those involved. Furthermore it is very important to handle the data and information gathered from the participants (Creswell, 2007, p. 142) and our responsibility is to preserve the data safety and confidentiality. This includes data storing safety, using the data without exposing the participants and using the data as agreed with the sample participants (Saunders et al., 2012, p. 231). We are aiming to pursue this as Creswell (2007, p. 141) suggested and constitute a big picture rather than a detailed individual picture concerning the sample participant.

Involvement in our study is optional for every participant and answering to the questions is optional. Saunders et al. (2012, p. 231) argued that it is important in order to keep the interviewed person feeling free to discuss and express personal opinion, but also being able to refuse to answer if needed. Furthermore in order to keep our
interviewed person comfortable and able to answer as well as to discuss the topics included in the interview, we are going to conduct our interviews mainly in Finnish. However, if the participant expresses his or her will to conduct the interview in English and feels comfortable in expressing opinions in different language, we can agree English as the interview language in that case.

We are going to contact entrepreneurs as well as experts and asking them to share some of their valuable time to answer our questions. Accordingly we need to show respect and due to this we are going to send a before mentioned confirmation email about the interview meeting where we also express how grateful we are for them to use their time for this research. Moreover we are going to convey our study results for the participants so they could see their input for this research.

3.10 Data Analysis

In a qualitative data analysis the researcher needs to make sense of the phenomenon, which is consisting of socially constructed and subjective meanings that are constructed by the sample participants in the study (Saunders et al., 2012, p. 546). The qualitative data analysis starts at the moment of the data collection compared to the quantitative data analysis, which starts after all data is collected (Bryman, 2002, p. 2). In our study we need to take this into consideration as we are going to conduct interviews and the evaluation of the answers starts at the moment of the interview. By this we can better understand the meanings of the data, as we are in a continuous process of analyzing it (Bryman, 2002, p. 2). The qualitative data analyzing can be conducted within a deductive or inductive setting where in a deductive setting the researcher is using already existing theory in order to construct the research objective, approach and data analysis, whereas in an inductive setting the researcher pursues to create a theory that is grounded in the data (Saunders et al., 2012, p. 548-549).

Yin (2009, p. 130-132) proposed four different strategies when analyzing a qualitative data. In the first strategy the researcher should follow the theoretical propositions that led him or her into the case study (Yin, 2009, p. 130). These propositions form the objective and the design of the case study is guiding the study to focus on a certain data (Yin, 2009, p. 130-131). The second strategy is more of an alternative for the first strategy and is used when the researcher fails to make the strategy work so he or she needs to develop one’s own descriptive framework (Yin, 2009, p. 131). This is mostly used in the cases where you first collect the data without having a defined research question or purpose (Yin, 2009, p. 131). The third strategy is conducted when you have collected both qualitative and quantitative data (Yin, 2009, p. 132). Finally in the fourth strategy the researcher evaluates and tests the rivalry explanations and can it be used with all previous strategies (Yin, 2009, p. 133-134). In our study we are relying on the existing theory from which we build our theoretical framework, which steers and controls our research design in total. Our theoretical framework governs our data analysis by providing certain theoretical categories, which breaks down our data and helps us to analyze it better. This helps us to utilize the data and use it to find related data in specific topics (Saunders et al., 2009, p. 489). Moreover this helps us to better analyze the data we collect with the abductive approach, which consists of inductive and deductive elements (Saunders et al., 2009, p. 489). Furthermore by implementing this theoretical perspective in our study it is in line with our research philosophy as Creswell (2007, p. 148) stated it to be central point in analysis of a critically and theoretically
oriented qualitative research. We can now better use our empirical results and combine it with our theoretical framework.

We want also to introduce a more specific analyzing method of a cross-case synthesis analysis, which is argued to be very suitable tool when conducting a multiple case study (Yin, 2009, p. 156). Moreover we are relying on a qualitative data with relatively small sample size. This is argued to be able to overcome as cross-case synthesis is often relying on an argumentative interpretation (Yin, 2009, p. 156-158), which in our study helps us to drive conclusions from individual and more generalized data. Furthermore, our analysis is constructed from two parts namely a preparation of the data and an analysis of the data. The process begins at the moment of the interview, where we pursue to write down as much as possible, but also evaluating the interviewed persons expressions in order to grasp deeper meanings of the spoken information (Saunders et al., 2012, p. 550). After the interview it is recommended to evaluate and check notes, as now the researcher is more aware of the spoken cases (Saunders et al., 2012, p. 550).

We are going to start our first step of analysis straight after the interview, as we are going to now check our memos and write the whole interview down. Saunders et al. (2009, p. 488) stated that when the research and research questions have been developed around the theoretical framework it is also suggested to use this framework as a basis when analyzing the data. We are going to code the data according the theoretical parts presented in our theoretical framework and use this as a basis when analyzing our data. Ghauri & Grønhaug (2010, p. 200) explain coding to be very important in qualitative study in order to organize the data. As an example the empirical qualitative study generates a pile of data from which we need to code and reduce the data to only include institutional motivations. Furthermore, we are going to reduce the institutional motivations according to our theoretical framework into three categories (see chapter 2.4.2). By doing this we are more capable to examine the data and link it to the framework and further develop it. Moreover as we are conducting a multiple case study and our goal is to evaluate all the cases individually, we are following this in our analysis and gather the data from one case and later after all interviews are conducted, we pursue to evaluate them in total. Besides our main primary data we are using ranking that is conducted during the interview. These results are scaled and do not need further preparation. The analysis here is done after all the data is collected.

In our final analysis we are using our recorded interviews in order to check again our notes and also to give a possibility to us both hear how the interviews went. We are going to follow our theoretical framework and use the data from the interviews with entrepreneurs, interviews with experts and our ranking data in order to build up a more complete picture regarding the phenomenon. Moreover we are going to evaluate the differences and similarities, while concentrating to spot interactions between the entrepreneurial and institutional motivations. We will use the theoretical framework as a basis in our analysis, but we are expecting to advance and develop the framework further, which will be done according to the empirical data and the theoretical aspects presented in this study. Finally we hope to see if and how the motivations change through the sustainability-oriented opportunity process from forming to exploitation.
4 Empirical Findings

In this chapter the empirical findings based on conducted interviews will be presented. In the first phase, the interview process as well as further interpretations from the interviews is discussed in more detailed. In the latter phase, the empirical findings are presented according to the theoretical framework and methodological choices. Similarly the empirical data is further elaborated with the help of tables and direct quotes from the interviews aiming to exemplify and strengthen the data presentation.

4.1 Interview Process

Interviews were conducted according to a strict time schedule and the whole process consisted of 12 interviews in total. From these 12 interviews, 9 interviews were conducted with entrepreneurs, 1 interview with a university researcher and 2 interviews with individuals working as business incubators. All interviewees had either individual expertise from the sustainable entrepreneurship or they had established a firm, which creates sustainable value. Based on the interview schedule, we have coded each interviewee accordingly. The coding similarly assures that we are able to protect the anonymity of the interviewees, which goes in line with our methodological choices. The coding has been done based on the current position of the interviewee, where ENT corresponds with the entrepreneur and EXP with the expert. In table 5 we have summarized the basic information concerning the conducted interviews.

Table 5. Interview Summary.

<table>
<thead>
<tr>
<th>Code</th>
<th>Date</th>
<th>Length</th>
<th>Mode</th>
<th>Recorded</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT01</td>
<td>21.03.2016</td>
<td>56:48 min</td>
<td>Personal</td>
<td>Yes</td>
<td>Entrepreneur</td>
</tr>
<tr>
<td>ENT02</td>
<td>21.03.2016</td>
<td>61:34 min</td>
<td>Personal</td>
<td>Yes</td>
<td>Entrepreneur</td>
</tr>
<tr>
<td>ENT03</td>
<td>22.03.2016</td>
<td>52:54 min</td>
<td>Personal</td>
<td>Yes</td>
<td>Entrepreneur</td>
</tr>
<tr>
<td>ENT04</td>
<td>23.03.2016</td>
<td>45:00 min</td>
<td>Personal</td>
<td>Yes</td>
<td>Entrepreneur</td>
</tr>
<tr>
<td>ENT05</td>
<td>23.03.2016</td>
<td>42:10 min</td>
<td>Personal</td>
<td>Yes</td>
<td>Entrepreneur</td>
</tr>
<tr>
<td>ENT06</td>
<td>23.03.2016</td>
<td>42:20 min</td>
<td>Personal</td>
<td>Yes</td>
<td>Entrepreneur</td>
</tr>
<tr>
<td>ENT07</td>
<td>23.03.2016</td>
<td>42:10 min</td>
<td>Personal</td>
<td>Yes</td>
<td>Entrepreneur</td>
</tr>
<tr>
<td>ENT08</td>
<td>24.03.2016</td>
<td>33:10 min</td>
<td>Personal</td>
<td>Yes</td>
<td>Entrepreneur</td>
</tr>
<tr>
<td>ENT09</td>
<td>05.04.2016</td>
<td>50:30 min</td>
<td>Personal</td>
<td>Yes</td>
<td>Entrepreneur</td>
</tr>
<tr>
<td>EXP01</td>
<td>22.03.2016</td>
<td>55:40 min</td>
<td>Personal</td>
<td>Yes</td>
<td>Researcher</td>
</tr>
<tr>
<td>EXP02</td>
<td>22.03.2016</td>
<td>63:42 min</td>
<td>Personal</td>
<td>Yes</td>
<td>Incubator</td>
</tr>
<tr>
<td>EXP03</td>
<td>30.03.2016</td>
<td>72:46 min</td>
<td>Personal</td>
<td>Yes</td>
<td>Incubator</td>
</tr>
</tbody>
</table>

Interviews were conducted in Finland and in Finnish between the 21st of March and 5th of April. Due to the specific circumstances ENT05 and ENT07 were interviewed together, but all the other interviews were conducted specifically between the interviewer and a single interviewee. We perceived personal interviews being the most beneficial mode of interviews and the most suitable approach concerning our methodological choices, which highlighted the importance of personal communication related to the data needed for us to answer our research questions and fulfill the study
purpose. In addition to conducted interviews we had a chance to interview an additional entrepreneur through a Skype, but as we would have been unable to observe the interviewee more closely we decided not to conduct an online interview. Also originally we had scheduled an interview with a fourth expert, but after an initial confirmation interviewee was not reachable any longer and we were forced to withdraw the interview from the original schedule.

We were allowed to record each interview electronically, which helped us to concentrate on the interviewee during the interview process and observe, if the interviewee was providing any non-verbal or other communication. Similarly the recording allowed us to later transcribe each interview individually, which enhanced the continuous analyzing process. After each interview was transcribed we sent the transcription to the interviewee for further comments or modifications, which similarly allowed us to ask further questions if necessary. The interview was planned to take maximum of 60 minutes and, as summarized in table 5, the length for the majority of interviews was following the original plan. Some entrepreneurs were in some extent disturbed by other obligations during the interview and in order not to cause any additional harm for the interviewee we decided to combine some questions together without compromising the data collection process, which shortened the total interview time. Similarly during the process we were able to gather more experience and insights concerning the interview structure allowing us to be more efficient. Also some interviewees (e.g. EXP03) were more detailed in their answers creating a longer discussion whereas other interviewees (e.g. ENT08) provided information with shorter answers. After the seventh interview we were able to spot patterns in interviewees responses especially in interactions between entrepreneurial and institutional motivations. Despite the identified patterns we decided to conduct all interviews according to the original schedule in order to generate a more complete view related to the phenomenon.

As discussed in the methodology chapter we conducted interviews in Western and Eastern Finland. We decided to divide interview responsibilities according to the geographical areas in order to be more efficient with the time window allocated for the interviews and because of the overlapping interview times. The diversification between Western and Eastern Finland did not result context-dependent findings, which supports our argumentation to use the data together in order to find more generalized results. We perceived that it could generate difficulties for the data collection, while we were not able to conduct interviews according to the similar process in two different locations with two different interviewers. In order to mitigate any risks concerning the quality of the data as well as to assure the continuous development of the interview process we went through each interview at the end of the scheduled interview date. Similarly we discussed about the needed modifications concerning the upcoming interviews. After the interview with EXP01 we noticed that the interview guide for experts was not completely suitable to provide us appropriate data. Based on this we further developed the interview process with experts to correspond less structured interview form. We exploited interview themes stated in the original interview guide (see appendix 2), but after the first interview we pursued more to generate a fruitful discussion around the themes rather than following the specific order of themes, which on the other hand worked better during the interviews with entrepreneurs. When we interviewed entrepreneurs who engaged themselves in a fruitful discussion we aimed to follow a more unstructured interview structure in order not to restrict the flow of the interview.
with strictly focusing on specific themes. In the end of the interview the responsible interviewee reviewed notes to make sure that all themes were covered during the discussion. The described process suited well with our philosophical stances as well as with the stated data collection methodology, which both supported the more unstructured and flexible approach.

During the first interviews we noticed that ENT interviewees had difficulties to either discuss or understand motivational factors around the phenomenon. Accordingly we were forced to add leading questions and examples concerning motivations, which can have a minor bias effect in our data. Especially institutional motivations were difficult for interviewees to discuss based only on open-ended questions, although this varied between different respondents. In some extent entrepreneurial motivations were similarly experienced as complex factors, because of the philosophical nature of different motivational concepts. In this context the additional questionnaire concerning the already studied entrepreneurial motivations lead in some cases to a more developed discussion at the end of the interview. Interviewees also provided motivations unconsciously when for example describing the background of the firm or the opportunity formation and exploitation process.

### 4.2 Characteristics of Sustainability-Driven Entrepreneurial Firms

We started our interview by first asking some background questions and afterwards we asked our interviewed entrepreneurs to reflect to our definition of sustainability-driven entrepreneurial firms, which is similarly discussed in the theoretical framework. Here we combined more general characteristics of an entrepreneurial firm to include dimensions from 3BL as well as definitive factors from the start-up literature. Our purpose for these questions was to ensure that our interviewed firms are fulfilling the dimensions, which we had set for sustainability-driven entrepreneurial firms. The definition was created from multiple sources and adapted to fit with the study purpose. However we did some prior investigation about the firms before choosing our sample firms, so firms would include at least dimensions of newness and sustainable value prior contacting the firm.

In solving the characteristic and getting our interviewed persons to reflect these to their own business we pursued to gather answers from our discussions, but we also set some direct questions that could be answered shortly yes/no. Answers showed a very consistent pattern as most of the firms reflected positively when various claims were presented during the interview. The first part of questions concerned characteristics of a new firm, which was similarly confirmed by all interviewees. “Active” feature was in some cases discussed more broadly whereas majority of interviewees highlighted that currently they have paid employees, but for example ENT03 had downshifted operations due to the specific circumstances. Despite the lack of full-time employees ENT03 highlighted that they further had active business with existing contract customers.

The second block was consisted of questions drawn from the entrepreneurship literature and these questions were aiming to reveal the suitability of entrepreneurial firm characteristics into the sustainability-driven entrepreneurial firm context. All interviewees described that the firm is market-oriented, personality driven and self-sustained. The growth-orientation was the only characteristic that was not unanimously
agreed. Similarly to the first section, ENT03 did not express growth ambitions in general, but declared that after external circumstances change their future plan is to grow the business.

The third block reflected assumptions related to the existence of the EO in firm’s operations. In this context innovativeness as a specific feature was identified by all interviewees. Risk-taking and proactiveness were in many cases discussed in more depth, but in the end only ENT03 declared that currently they do not have a risk-taking and proactive approach, because of the specific circumstances in the operational environment.

Finally the fourth block aimed to investigate the value creation in terms of sustainability. As all interviewees at least in some extent had difficulties to express the exact value creation forms, these factors were similarly discussed throughout the interview. In the end all interviewees had reflected to the different forms of sustainable value creation, which has been similarly summarized in table 8 at the later phase of the empirical findings chapter.

As discussed most of the features were unanimously agreed, but few features related to the entrepreneurial firms and EO were more controversial related to the perceptions from ENT03. These controversies were based on the current challenges in the functional environment and can be summarized as follow:

ENT03: “Other factors are also affecting as the price level of fossil fuels as oil is low at the moment and it has destroyed the foundation from this idea. The existing oil heated properties have no rush to think other heating solutions.”

4.3 Sustainable Development and Sustainable Entrepreneurship

After several background questions and questions concerning the definition of sustainability-driven entrepreneurial firms, interviewees were asked to reflect upon their understanding on the sustainable development and sustainable entrepreneurship. Questions considered both concepts as interrelated and similarly responses are tightly interrelated. Responses varied significantly especially in the beginning of the interviews, but in many cases the more coherent view was generated in the later phase.

Responses can be divided into three different categories, although there can be found some overlaps similarly. ENT01, ENT09 and EXP02 firstly described sustainable development to consider continuous product or service development, which assures firm’s survival as well as its growth. ENT09 explained that development needs to be sustainable not turbulent. ENT01 reflected to this as follow:

ENT01: “If I reflect it to our current system, it means bringing continuously new products and new features for the same platform into the market and pursue for growth through these actions...”

EXP02 related sustainable development with the continuous business development, but recognized that the sustainable entrepreneurship can include additional dimensions like environmental aspects. Despite the wider approach, EXP02 declared that the sustainable entrepreneurship does not differ significantly from the conventional entrepreneurship
and additional dimensions are only beneficial, if they either add value for the customer or create sustainable competitive advantage with a higher price, which helps the firm to grow. Also ENT04 brought up the problematic situation with the higher price, closely related to the other dimensions of the sustainable development. The interviewee similarly stressed how it prevents more sustainability-driven firms to gain higher market shares, if the product or service does not add any specific value, which would cover the higher price. When asked to reflect into these claims EXP02 provided the following arguments:

EXP02: “Well the term is great. It is development and has a sustainable foundation, which you can step on...Firm develops and probably it lasts longer time. But it works poorly as a sales argument, if it is nothing else. Regarding sustainable development and similar, I believe that it cannot be forced and if we think purely business it comes with time, if we same time a) lobby it b) buyers accept it. As long as the terminology is challenging...”

The second category considers sustainable development and sustainable entrepreneurship through environmental dimension. ENT02, ENT03 and ENT04 highlighted the environmental friendly production and the environmental value produced. EXP01 discussed environmental aspects and value creation, but in addition provided more general perceptions on the sustainable development. ENT06 linked sustainability with the circular economy, which aims to circulate the value and pursue for waste limitation rather than using the waste as a raw material or energy. The perception can be reflected in the ENT06 business idea, which utilizes organic waste as a raw material for the final product and similarly looks to limit the amount of waste generated. ENT03 on the other hand perceived the sustainable development through the circular economy with the following statement:

ENT03: “In a way the idea that everything that goes into production creates as little waste as possible so everything would go to use.”

EXP03 described sustainable entrepreneurship through several industries that interviewee linked with the terminology. In this context the forest biotechnology and digitalization could be used as examples of business areas portraying the sustainable entrepreneurship and ways to enhance the sustainable development. EXP03, in line with arguments from ENT02, ENT03 and ENT06, related the sustainable development with the environmental mission and reduction of carbon dioxide emissions. Interestingly EXP03 divided sustainability-driven entrepreneurs into two categories. First type of entrepreneurs are opportunity- and profit-driven who see the sustainable development or environment as a business opportunity, whereas other type of entrepreneurs are approaching the business through a sustainability and they are looking to “save the world through their input, even if it is a small one” (EXP03). Based on the interviews ENT01, ENT02, ENT06 and ENT08 could be linked with the opportunity-driven category, whereas interviewees belonging to the sustainability-driven category are more unclear, but for example ENT05 and ENT07 are strongly driven by their own sustainability related values and ENT09 considered sustainability to represent the idea behind the business. Similarly ENT03 expressed having environmental values, but the sustainable development is considered more as a firm’s by-product.
All in all respondents in the second category approached sustainable development and sustainable entrepreneurship through profit and environmental dimensions, which can be named as a double bottom line approach. As discussed the terminology or definition was seen as complex and in many cases the sustainability was considered to correspond with the environmentally friendly production methods. ENT02 concluded this view with the following statement:

ENT02: “Sustainable development...well...Of course the product is produced with environmentally friendly ways and in each phase is taken into account that no toxic compounds are used and production is done in circumstances, which respect human rights or similar. Also if it saves energy I consider it as a sustainable development.”

The above quotation from ENT02 leads to the third category of respondents who expanded the view to correspond more environmental and social dimension, where the profit is necessary to keep the business running. ENT02 shortly described the social dimension through human rights, but in the third category interviewees considered the social development mainly in a form self-employment preventing negative social consequences. None of the interviewees directly linked sustainable development or sustainable entrepreneurship with all dimensions of the 3BL, but for example ENT02 and ENT03 brought up that they considered the social dimension to be an important factor in their decision-making concerning the sustainability-oriented opportunity formation and exploitation process. ENT09 highlighted that environmental and social contributions are in the heart of their business model. Similarly ENT08 saw social aspect to have a high impact on the respondent’s decision to establish a profit-oriented and in some extent an environmentally viable firm. For ENT05 and ENT07 sustainable entrepreneurship is primarily environmental and social phenomenon, whereas the economic aspect is considered to be less important, but necessary.

ENT07: “In the beginning we did not have commercial motivation, but now it is more important while we need to bring the bread into the table. The starting phase considered more just to highlight our personal values. I wanted to express myself and my view, which is best achieved through own firm.”

Table 6. Categories of Sustainable Development and Sustainable Entrepreneurship.

<table>
<thead>
<tr>
<th>Category</th>
<th>Explanation</th>
<th>Interviewees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Development</td>
<td>Considers sustainable development as continuous development, which does not necessarily have strong relation on environmental or social dimensions.</td>
<td>ENT01, ENT09, EXP02</td>
</tr>
<tr>
<td>Double Bottom Line Approach</td>
<td>Sustainable development considered through two dimensions of economic, social and/or environmental.</td>
<td>ENT02, ENT03, ENT04, ENT06, EXP01, EXP02, EXP03</td>
</tr>
<tr>
<td>3BL Approach</td>
<td>At least in some extent take all three dimensions of sustainable</td>
<td>ENT02, ENT03, ENT05, ENT07, ENT08, ENT09, EXP02</td>
</tr>
</tbody>
</table>

As described each interviewee had different perceptions on the sustainable development and sustainable entrepreneurship. Based on the responses we have divided interviewees into different categories (see table 6), if they have provided data in order to do so. Some
interviewees have been placed in two categories based on the overlapping information and how interviewers have interpreted the data.

4.4 Opportunity Forming and Exploitation

One major theme in the theoretical framework concerns the opportunity forming and exploitation process related to the sustainable entrepreneurship. Questions in this context were aimed to investigate how entrepreneurs come up with the idea, see the supply and demand in the marketplace during the opportunity process, as well as what is the role of the opportunity evaluation. Similarly we were investigating, if the process is rapid or longer in time wise and what are the main reasons for entrepreneurs to establish a new firm rather than bringing the sustainability-oriented innovation to the market through other exploitation channels. In addition to the perceptions from entrepreneurs interpretations from experts were taken into account in order to create a more comprehensive view of the process.

First questions concerned the origin of the idea and foundational reasons for interviewees to proceed with the opportunity formation and exploitation. ENT01 and ENT02 described personal need and lack of solutions in the market as a starting point for them. ENT03, ENT04, ENT05, ENT06 and ENT07 explained that they saw an opportunity on the market, which no one had addressed before. In addition to the identified opportunity ENT08 was interested to develop the prior developed solution forward, which could create higher value for the customer. ENT09 addressed that after working in the industry interviewee noticed that “things could be done better, in a more efficient way and I could be a forerunner in the market” (ENT09). EXP01 came to a similar conclusion by defining that in the sustainable entrepreneurship opportunities or market failures exist and then the entrepreneur needs to weigh the relationship between the problem and solution. Half of the interviewees (ENT04, ENT06, ENT09, EXP01, EXP02, EXP03) highlighted the person’s individual role in the process, but ENT01, ENT02, ENT03, ENT05, ENT07 and ENT08 stated that the process can start through individual actions or it can include several individuals already in the beginning or already in the early phases. In addition ENT03 described that although the interviewee originally developed the idea, the final decision to move forward was influenced by individuals functioning in already existing firms.

When asking about the existence of supply and demand in the market during the initial opportunity formation phase, none of the interviewees declared that both variables existed already. On the other hand interviewees struggled in clearly defining relationships between the supply, demand and opportunity. ENT03, ENT05, ENT06 and ENT07 explained that in some extent there was a clear consumer demand on the market for the product or service related to the entrepreneur’s business idea. The non-existing supply levels were clear to all interviewees as highlighted by ENT06:

ENT06: “There are no similar suppliers in the market. In fact when considering food industry, there are small amount of suppliers globally who can even offer entire production line. Everyone offer only one machine or part of the machine or maximum of two machines.”

When asked about the demand for example ENT03 and ENT06 expressed that they had investigated the possible demand beforehand, but ENT05, ENT07 and ENT09 used
more experiential approach and existing demand was discovered after the first sales actions had been implemented. All in all these four interviewees identified that demand existed in the market. ENT07 declared their approach to demand and supply questions as follow:

ENT07: “It started from the idea that we tried and which we saw to work. [Name of the raw material] was familiar and we saw that no one supplied good home textiles from that material. In this phase the firm was just an idea and when we saw demand during the sales event and one retailer asked us to supply our products to their stores, the business started to roll.”

Other interviewees (ENT01, ENT02, ENT04, ENT08, EXP02 and EXP03) more clearly linked the sustainable entrepreneurship and opportunity forming with a non-existent supply and demand. ENT04 and ENT08 were more direct in their responses and declared that either supply or demand did not exist. ENT01 and ENT02 explained that the existing demand could not be stated so clearly, because some similar solutions with different technological features are on the market, but these solutions are more expensive as well as complicated. Similarly ENT01 and ENT02 highlighted that the industry in which they are operating in is still quite novel, which even hinders the emergence of consumer demand. EXP02 and EXP03 supported this statement by explaining that prices of sustainability-oriented products or services are still high and EXP03 further declared that the novelty causes some issues related to the demand as well as to supply. ENT04 gave a descriptive response concerning the relationship between supply and demand.

ENT04: “There were no existing supply or demand, only an idea that I started to execute.”

Further questions concerned about the role of evaluation during the opportunity formation and exploitation process. All interviewees highlighted the role of evaluation, but responses differed in which part of the process evaluation played a more comprehensive role. ENT01, ENT02 and ENT08 considered that the evaluation was a more visible factor at the earlier phases of the opportunity formation process, but ENT01 and ENT02 similarly agreed that its role is also continuous. EXP02 took a similar standpoint by describing the importance of a continuous evaluation, if the aim is to create a successful business and prevent the firm to transform too static in its functions. On the other hand ENT03, ENT05 and ENT07 explained that the evaluation has been a more visible factor during the exploitation process rather than in the forming stage. One visible factor related to the evaluation considers resources in all forms, which was stated to be under continuous evaluation during the different stages of the process.

ENT02: “Well...Let’s say that it started from an idea and simultaneously we evaluated these risks and opportunities. Also we used in some extent evaluation before we started to run a business in a way that we produced a prototype beforehand and then proceed to launch.”

Similarly questions were asked about the length of the opportunity formation and exploitation process. Interviewees either stressed that the process was a more rapid or longer. ENT01 and ENT02 described process as more rapid, while almost right after the idea came forward the evaluation was carried out and the opportunity was exploited to
the market. On the other hand ENT03, ENT06, ENT08 and ENT09 explained that they have had a similar business beforehand or had worked previously in the similar industry. These factors acted as pre-conditions for the opportunity development, but the whole process took a significantly longer time than with interviewees ENT01 and ENT02. EXP03 further highlighted that there are entrepreneurs who develop the idea for years and there are entrepreneurs who start by selling the possible non-developed product or service to the customer, which corresponds with a more rapid opportunity process.

The following part of the interview considered interviewees perceptions regarding the opportunity exploitation and the modes of bringing the innovative product or service into the market. All ENT interviewees declared that their final option for exploitation was an establishment of a new firm, but some interviewees similarly considered other options to be viable during the process.

ENT01, ENT02, ENT04, ENT05, ENT07 and ENT09 explained that the opportunity exploitation was decided to execute through a new firm and no other options were considered. For example ENT09 highlighted that the personal motivation to do things better drove towards a new firm rather than exploiting the opportunity through an existing firm. Similarly interviewee highlighted the better value creation perspective that could be achieved through a new firm rather than pursuing the opportunity through an existing firm. For ENT05 and ENT07 the decision to establish a firm was considered as a channel to express themselves rather than pursue for the highest possible value creation. ENT04 willingness to try entrepreneurship guided the decision-making towards a new firm whereas ENT01 and ENT02 decided already in the beginning of the process that the opportunity exploitation will be done through a new firm and they did not consider any other options. ENT01 highlighted that there were competitors with imitative products already in the opportunity formation phase, but it did not had effects on their exploitation decision. ENT01 reflected to the opportunity exploitation like it was among first decisions made in the process.

ENT01: “It [other opportunity exploitation options] did not even came to our mind while the idea cannot be sold as an individual, it needs to be a firm that sells the idea if sells at all. It was from the beginning that we would establish a new firm. Also when the product is ready, you can get rid of it quickly as well.”

In this context ENT03, ENT06 and ENT08 considered other exploitation possibilities, but in some stage of the process and based on the detailed evaluation, these options were rejected. ENT03 explained that the idea was partially formed together with existing firms, which were also options for the opportunity exploitation. Finally none of the firms were interested on this, because the final product did not fit into their core business model. ENT06 explored existing metal firms on the market, which could have been purchased and used as an exploitation channel for the innovative product. Similar to ENT03 the core business of these metal firms became as the main obstacle, while none of the existing firms had a strong core business that could have carried the firm forward in a case of a failure. EXP02 brought up a similar notion regarding the core business and suitability of sustainability-oriented products or services into the business model of existing firms. Interviewee saw the opportunity exploitation to be most efficient through spin-offs separated from the existing firm’s core business that would not cannibalize the other functions of the firm while it similarly provides flexibility to
observe which opportunities are the most promising ones in the future. Similarly ENT08 declared that it was extremely tight decision between a new firm and an existing firm, but practical issues like financing options and questions in profit distribution were the main factors in exploitation decision-making. ENT06 described factors in exploitation decision-making as follow:

ENT06: “It was like no good metal firms were confronted. None of them felt like this is mine. Neither firm had good enough product in their portfolio that would carry the firm and its core business forward.”

When asking about the risk and uncertainty involved in a decision-making, interviewees provided two different perspectives. ENT05, ENT07 and ENT09 did not see the role of the risk as a contributing factor. All interviewees (ENT05, ENT07 and ENT09) identified that risks have effects, but emerging risks and therefore a possible failure in the business do not have influence on their decision-making. ENT01, ENT02, ENT03, ENT04, ENT06 and ENT08 defined their functional environment as risky or more uncertain, which have effects on their decision-making. Major opinions about the factors generating risky and uncertain environment were linked with a growth, financial resources and product uncertainty, which concerns that alternative solutions could be better options to fulfill the market need and which could have been launched faster to the market by competitors. For example ENT08 defined risk and uncertainty factors to be linked with growth, R&D and financial resources.

ENT08: “The risk is related more to the management of a growth and cash flow. Overall this is a huge R&D investment and risk is in R&D, but the real challenge is to sell new product, new way of thinking, into new market and with a new firm to customers in a traditional manufacturing industry.”

In this section interviewees were asked to describe several aspects regarding opportunities in terms of demand, supply, evaluation, risk and uncertainty. As a conclusion we have categorized in table 7 each ENT interviewee based on the provided data to either reflect theoretical factors in the opportunity discovery or opportunity creation theories.

Table 7. Interviewee Distribution Between Opportunity Theories.

<table>
<thead>
<tr>
<th>Opportunity Process</th>
<th>Interviewees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunity Discovery</td>
<td>ENT03, ENT05, ENT06, ENT07, ENT09</td>
</tr>
<tr>
<td>Opportunity Creation</td>
<td>ENT01, ENT02, ENT04, ENT08</td>
</tr>
</tbody>
</table>

4.5 The Value Creation in Sustainable Entrepreneurship

As the one essential difference between the conventional entrepreneurship and sustainable entrepreneurship concern differentials in the value creation, the following part considers interviewees perceptions related to the value creation theme. All in all, the majority of interviewees declared the economic value to be one of the essential forms of value creation, but with the help of follow-up questions alternative reasons emerged during the interview. In addition questions related to this section considered the geographic scale and scope of the value creation as well as the level of structural embeddedness in relation to the value created.
In table 8 the value creation perspectives have been summarized based on the interview data. From each ENT interview value creation factors could be drawn accordingly, although other factors were seen more important than others similarly highlighting overlapping perceptions. EXP01 emphasized that overlaps are common, because higher economic value can be a result from a more environmental-friendly approach for example in transportation business.

ENT01 highlighted strongly the importance of firm’s economic value creation capability already in the beginning of the process, whereas the other value creation forms were considered to support the accumulation of profit. EXP02 supported the statement by identifying the economic value as the primary form of the value creation in the sustainable entrepreneurship and social as well as environmental dimensions can support it, but rarely acting as the most dominant dimensions in a successful business. In addition, EXP02 expressed that the social and environmental value creation capabilities can in some cases be a precondition from the buyer side as well as act as a “trump card” between similar suppliers.

ENT01: “Well in that way my view is that the profit is the main reason why we do this or I haven’t never thought that we are doing this for environment, although we take environment into account in everything that we do [...], but I don’t link it too much into the business actions.”

ENT02, ENT03, ENT04, ENT05, ENT07 and ENT08 described that the economic value is important, because it enables operative business actions and further growth. In this context interviewees raised the social and environmental value creation to the same level or even above the economic dimension. EXP01 further highlighted that the conventional entrepreneurship treats sustainable development as a byproduct not as the ultimate goal of the firm as it should be seen in the sustainable entrepreneurship. The social dimension was often described through a firm’s ability to create social value for the entrepreneur itself for example through self-realization (ENT02, ENT04, ENT05, ENT06 & ENT08). ENT04 additional described that although interviewee had not considered the social value creation in depth, their aim is to provide employment opportunities for local students. EXP03 argued that the concept of local employment together with the social value creation could be a problematic measure for sustainability, because employment is based on the knowledge not tied with the specific geographical area, although in many cases it is used as a measurement for the effectiveness of entrepreneurial actions. ENT03 treated all three dimensions as a more equal against each other, which was not similarly perceived by other interviewees. ENT08 brought up an interesting approach by describing the social value creation in relation to possibilities to decrease stress and physical burden with the help of the product and service. ENT09 additionally highlighted that their firm aims to produce value for the people's life by making it better.

Several interviewees mentioned the use of local suppliers and subcontractors in their operational functions, which was similarly linked with the social value creation through employment. ENT02 highlighted possibility for self-employment, but in addition brought up that together with the successful business the firm may be able to locally employ more people that is vital for the local economy. ENT09 saw the social value creation also as a competitive advantage that can be described with the following quote:
ENT09: “We want to assure that our products are ethically ok and although Chinese products are cheaper we favor other suppliers instead. When import duties have recently increased, I am planning to acquire more products locally and create value for the customer as well as Finland and [name of the city].”

Table 8. Interviewees and Value Creation.

<table>
<thead>
<tr>
<th>Code</th>
<th>Economic</th>
<th>Social</th>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT01</td>
<td>Strong emphasis on economic value creation through profit.</td>
<td>Use of local suppliers and subcontractors in firm’s operations.</td>
<td>Lower energy consumption and additional environmental value creation e.g. from energy efficient production methods.</td>
</tr>
<tr>
<td>ENT02</td>
<td>Economic value considered in a form of profit.</td>
<td>Self-realization, self-employment and future employment opportunities.</td>
<td>Environmental value comes from energy saving.</td>
</tr>
<tr>
<td>ENT03</td>
<td>Profit as well as returns for the shareholders.</td>
<td>Consider social value as a by-product through self-employment and employment opportunities.</td>
<td>Innovative solution for ecological energy production with a lower carbon footprint.</td>
</tr>
<tr>
<td>ENT04</td>
<td>Profit enabling the growth and self-sustained nature of the firm.</td>
<td>Self-realization. Employs local students.</td>
<td>Reduction of emissions related to logistical services.</td>
</tr>
<tr>
<td>ENT05</td>
<td>Economic value enables steady growth and self-financed operations.</td>
<td>Self-realization. Domestic supply and production creating new employment opportunities.</td>
<td>Use of 100% recyclable raw material in the final product.</td>
</tr>
<tr>
<td>ENT06</td>
<td>Economic value creation and profit critical because of operations need investments.</td>
<td>Creates social value through employment opportunities and enabled self-realization.</td>
<td>Product enables the 100% use of raw material excluding accumulation of waste.</td>
</tr>
<tr>
<td>ENT07</td>
<td>Economic value enables steady growth and self-financed operations.</td>
<td>Self-realization. Domestic supply and production creating new employment opportunities.</td>
<td>Use of 100% recyclable raw material in the final product.</td>
</tr>
<tr>
<td>ENT08</td>
<td>Economic value necessary as it enables the continuous development.</td>
<td>Self-realization. Decreases employee stress and physical burden.</td>
<td>Product/service helps production sites to for example identify possible energy leaks.</td>
</tr>
<tr>
<td>ENT09</td>
<td>Economic value enables steady growth and self-financed operations.</td>
<td>Self-realization. The use of local subcontractors and suppliers with employment opportunities. Products and services that make peoples life better.</td>
<td>Various forms of ecological value creation through renewable energy.</td>
</tr>
</tbody>
</table>

The environmental value was commonly described through firm’s products or services. As highlighted in table 8, the environmental value was commonly produced through
environmentally friendly energy solutions. ENT03 explained that their innovative product decreases carbon dioxide emissions significantly in the rural areas where only traditional and more polluting solutions have been available earlier. ENT01 and ENT02 provide product and interactive service, which helps the customer to reduce their heating costs. ENT09 supplies products and services that utilize renewable energy sources. ENT08 product and service contribute to the environmental value creation, for example through revealing possible energy or heat leakages in manufacturing sites. In addition to the energy related environmental value creation ENT04 provides environmentally friendly service for the use logistic industry, ENT05 and ENT07 described their core product to be 100% recyclable and ENT06 had innovated a complete product line for the use of the manufacturing industry, which enables the 100% use of raw material and the decrease of waste similarly.

ENT06: “There is a huge environmental value in the product, because it enables 100% use of [name of the raw material]. Currently 30-35% remains unused. Now we have started to make use of it that the whole product will be used and the process will not leave any parts unused.”

The latter part of questions concerned the scope of the value creation as well as the level of structural embeddedness in the sustainable value creation. From the interview with ENT04 the value creation scope can be described as more local, whereas the firm only functions in one specific area in Finland. Similarly ENT04 explained that they use local resources and stakeholders as well as provide service to local customers, which enhances the local embeddedness further. ENT01 and ENT02 highlighted that their value creation currently concentrates inside the domestic market area and they are in a high extent embedded with the local as well as domestic resources and stakeholders. Both brought up expansion ambitions that would address the more global market as soon as they have needed resources. ENT03 described that they currently have only local customers, but they are using for example suppliers who are located outside of Finland. The aim is to test and develop the concept first locally, which would offer the firm a solid ground for more national expansion.

ENT08 followed the similar path by declaring that their value creation is currently concentrated inside the national borders, although the firm has expansion ambitions, but further actions are limited because of the insufficient resources. In addition the interviewee highlighted that they are engaged to acquire new resources domestically instead of globally, which further enhances the domestic embeddedness. ENT09 had twofold approach on the value creation, whereas the local value creation was considered as the most recognized form, but due to the nature of the business firm provides services and products also in a national context. Similarly ENT09 brought up that they are currently embedded to the global resources and stakeholders, but the future plan is to acquire resources from a more domestic and even from a more local context. The interviewee especially highlighted the possibilities for the local value creation, which could be seen as an outcome of the local embeddedness.

ENT08: “We are aiming to be a global actor in the future depending on adequate resources [...] We are capable of doing everything within the firm, but we also aim to increase our domestic subcontractor networks, because of the project-oriented nature of the business. We are engaged to hire new programmers from Finland, our aim is not to go and get them abroad.”
ENT05, ENT06 and ENT07 provided a different approach compared to other interviewees. ENT06 described the firm as a global oriented and further declared that the product is unique in its sense that it is impossible to sell several products into a one country. Similarly their main markets are outside of Finland. When asked about the embeddedness ENT06 brought up a notion that in the beginning the embeddedness was more domestic, but as adequate resources or stakeholders were not available in Finland they have now acquired additional resources abroad and plan to continue this development. ENT05 and ENT07 started their business in Finland, but quite early they noticed also global possibilities and possibilities for the global value creation, which is currently a big part of their business. Interviewees also described that the domestic embeddedness is important factor for the firm, although due to the circumstances some global resources are needed as well as used. ENT05 explained this as follow:

ENT05: “From the beginning we have aimed to acquire all materials and have the production at close range, [name of the raw material] is the only material that is not produced in Finland, but also it comes from the closest possible location which is [name of the country].”

To conclude the empirical data presented above, it can be said that interviewees’ perceptions on the value creation varied in number of points. Although the interviews unveiled several value creation aspects from economic, social and environmental sources (see table 8) in most of the cases the complete picture was difficult for interviewee to describe. On the other hand all interviewees had a clear picture about the scope of the value creation as well as the level of structural embeddedness. Overall the collected empirical data can be considered to provide clear similarities as well as differences for the further analysis.

4.6 Entrepreneurial Motivations

One of the foundational parts of the study concerns entrepreneurial motivations in the sustainable entrepreneurship context, which were similarly visible in the data collection phase. Although interviewees in some extent struggled to provide exact motivational drivers through direct questions, other questions like idea background questions revealed several factors related to the motivation. Similarly at the end of the interview process interviewer invited interviewee to rank entrepreneurial motivations studied in the conventional entrepreneurship context. The ranking was made according to the Likert scale where 1 was considered as the least motivating factor and 5 as being a high motivating factor. The summary of the ranking data has been presented in appendix 5.

Table 9. Entrepreneurial Motivations – Need for Achievement.

<table>
<thead>
<tr>
<th>Motivation</th>
<th>ENT01</th>
<th>ENT02</th>
<th>ENT03</th>
<th>ENT04</th>
<th>ENT05</th>
<th>ENT06</th>
<th>ENT07</th>
<th>ENT08</th>
<th>ENT09</th>
</tr>
</thead>
<tbody>
<tr>
<td>nAch</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

The interviews revealed that half of the interviewees (5 ENT & 1 EXP) identified a need for achievement (nAch) to be an applicable concept and a motivational factor during the opportunity process. The majority of perceptions were linked with the need to succeed or achieve a specific outcome through the firm and its operational functions. The similar data can be drawn from the ranking (see table 9) where 8 out of 9 ENT interviewees ranked nAch with a value of 3 or higher. For example ENT04 explained that the foundational motivation was to achieve success with the firm:
ENT04: “The desire to succeed has been the foundational reason for an establishment of a firm.”

Table 10. Entrepreneurial Motivations – Internal Locus of Control.

<table>
<thead>
<tr>
<th>Motivation</th>
<th>ENT01</th>
<th>ENT02</th>
<th>ENT03</th>
<th>ENT04</th>
<th>ENT05</th>
<th>ENT06</th>
<th>ENT07</th>
<th>ENT08</th>
<th>ENT09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Locus of Control</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Internal locus of control received values above 4 from 8 out of 9 ENT interviewees as visualized in table 10. On the other hand only ENT05 and ENT07 clearly described internal locus of control as a motivational factor during the interviews. Interviewees (ENT05 & ENT07) strongly expressed that they saw the opportunity exploitation through a new firm as the only way to control and be responsible for their own destiny, while simultaneously highlighted linkage with the self-realization motivation as ENT07 described.

ENT07: “Self-realization would have been impossible to execute in any other context. [...] We wanted to have responsibility from our own destiny.”

Table 11. Entrepreneurial Motivations – Independence.

<table>
<thead>
<tr>
<th>Motivation</th>
<th>ENT01</th>
<th>ENT02</th>
<th>ENT03</th>
<th>ENT04</th>
<th>ENT05</th>
<th>ENT06</th>
<th>ENT07</th>
<th>ENT08</th>
<th>ENT09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independence</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Similar to need for achievement half of the interviewees (6 ENT) explained that one of the essential motivational factors has been a possibility to have a higher level of independence executed through the sustainable entrepreneurship. As highlighted in the table 11 similar assumptions was considered important when interviewees were asked to rank this motivational factor. ENT03, ENT04, ENT05, ENT07, ENT08 and ENT09 were especially interviewees highlighting the motivational effect.

Table 12. Entrepreneurial Motivations – Self-efficacy.

<table>
<thead>
<tr>
<th>Motivation</th>
<th>ENT01</th>
<th>ENT02</th>
<th>ENT03</th>
<th>ENT04</th>
<th>ENT05</th>
<th>ENT06</th>
<th>ENT07</th>
<th>ENT08</th>
<th>ENT09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-efficacy</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

ENT02, ENT04, ENT09 and EXP03 explained features of self-efficacy having a motivational effect during the process, which similarly was linked with the goal setting as well as with the need for achievement. EXP03 highlighted differences between individuals when for example more sales-oriented individuals begin the process with a high self-efficacy, whereas more technology-oriented individuals can have a high self-efficacy related to the product development, which both are important in the opportunity forming and exploitation process. As visualized in table 12 values related to the self-efficacy were considered as a more neutral compared to the other motivational factors.

Table 13. Entrepreneurial Motivations – Drive and Passion.

<table>
<thead>
<tr>
<th>Motivation</th>
<th>ENT01</th>
<th>ENT02</th>
<th>ENT03</th>
<th>ENT04</th>
<th>ENT05</th>
<th>ENT06</th>
<th>ENT07</th>
<th>ENT08</th>
<th>ENT09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Passion</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Majority of interviewees (ENT01, ENT04, ENT07, ENT08, ENT09, EXP01, EXP02, EXP03) described characteristics of a passion and drive having a motivational effect during the process. When reflecting perceptions based on the given values in table 13, there can be identified more variation than during the interviews. For example ENT01 explained drive through energy, stamina and persistence, whereas ENT06 brought up passion when defining the process of building up the organization and the continuous development of the firm in order to make it profitable. Also several interviewees described drive and passion in similar context as they were considered more overlapping factors for example through a hard work related to the continuous development or drive and passion needed in order to grow as ENT05 highlighted.

ENT05: “From the beginning there has been a strong desire to grow and develop this even globally.”

Table 14. Entrepreneurial Motivations – Additional Motivations.

<table>
<thead>
<tr>
<th>Motivation</th>
<th>ENT01</th>
<th>ENT02</th>
<th>ENT03</th>
<th>ENT04</th>
<th>ENT05</th>
<th>ENT06</th>
<th>ENT07</th>
<th>ENT08</th>
<th>ENT09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk-taking</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Ambiguity Tolerance</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Goal Setting</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

In addition to the discussed factors interviewees ranked three additional motivational factors as visualized in table 14. In this context risk-taking, ambiguity tolerance and goal setting were not specifically highlighted during the interviews. Based on the given values ENT interviewees considered goal setting having an impact whereas risk-taking and ambiguity tolerance scored lower. Similarly interviewees linked some of the discussed factors having overlapping features, which were highlighted during the interviews.

The empirical data additionally revealed other motivational factors, which had a strong effect during the process. One of the most discussed factor was motivation accumulating from the prior experience, which ENT01, ENT02, ENT03, ENT05, ENT06, ENT07, ENT08, ENT09 and EXP03 linked to the opportunity process or the business idea was related to the prior educational or professional experience. For example ENT06 described prior experience having a strong effect on the interviewee.

ENT06: “Of course it was the prior experience, 23 years I have worked in the industry.”

Together with a prior experience ENT01, ENT03, ENT04, ENT05, ENT07, ENT09, EXP01 and EXP03 brought up personal values as a motivational factor and foundational driver for the opportunity process. In this context most interviewees described environmental friendly values having motivational impacts, but especially ENT09 additionally highlighted the effect of social and altruistic motivations in the beginning and as well as in the later phases of the process.

ENT09: “All products are high-quality so we aim to create value to people's life and develop it so it could be better. We have energy efficient solutions so we create value for the environment and community while favoring local suppliers and subcontractors. We provide these solutions, but we can also state that similarly we aim to save the world.”
The empirical data revealed also individual based motivations, which reflected overlapping features against each other. ENT02 brought up a notion that a necessity factor motivated the interviewee while the opportunity was in that time the only way, which enabled employment in that specific geographical region. For example ENT03 and ENT04 followed a similar path and declared that they were partially motivated by the possibility of a self-employment, although both interviewees had a paid position in an existing firm. Related to the self-employment ENT02, ENT03, ENT04, ENT05, ENT07, ENT08 and ENT09 highlighted that the opportunity process enabled self-realization, which was considered as a significant motivational factor. For example ENT05 and ENT07 described that the only way of achieving self-realization for them was an entrepreneurial process without a strong profit motivation that was considered more as a byproduct. ENT02, ENT05 and ENT07 also linked the self-realization with creativity. In some extent interviewees brought up the notion of individual creativity, which in turn lead to a self-realization through the opportunity process. ENT02 even considered creativity to have a strong motivational influence.

Finally interviewees provided perceptions that can be considered as more overlapping factors with external influences. All interviewees discussed that the opportunity itself is a motivational factor in the process. Although the value exploited from the opportunity in some extent varied, ENT01, EXP02 and EXP03 linked the opportunity with a profit motivation, whereas ENT04, ENT05 and ENT07 integrated the opportunity to a growth motivation. In this context the opportunity, profit and growth can all seen as motivating factors derived from the empirical data. Interpretation was further highlighted by ENT01.

ENT01: “Well money it is. Economic factors were important although I had a job with a good salary, but I knew that it wouldn’t make me rich. [...] We need to expand outside of Finland as soon as we have adequate resources.”

The empirical data considering entrepreneurial motivations provided various interpretations although interviewees in some extent struggled in providing direct motivational factors. As discussed majority of studied entrepreneurial motivations were brought up, but additional motivational factors were similarly discovered.

4.7 Institutional Motivations

In this section we are going to present the empirical data related to the institutional motivations, which will extend the motivational framework in the sustainable entrepreneurship. The data was collected based on the distribution presented in the theoretical framework that divided institutional motivations in regulative, normative and cultural-cognitive sources. During the interviews the complex nature of the institutions needed to be taken into a consideration, which required helping interviewees to understand the three pillars in order to reflect motivational sources with their business.

4.7.1 Regulative

The regulative environment as an external source of motivations was the easiest of the three institutional pillars to explain for the interviewees. During the interviews it came quite clear that the government was playing a big role in controlling the regulative
environment. However without leaving interviewees only discussing the governmental actions and their effect on the opportunity forming and exploitation process, the conversation was steered to include other regulative motivations as well.

First the governmental incentives including start-up grants, supporting systems and advice services were mentioned to be more or less motivating for the entrepreneurs. Almost every interviewed entrepreneur (ENT01, ENT02, ENT03, ENT04, ENT05, ENT06, ENT07) stated that they have received some start-up grants from the government and it was seen as a motivating factor for the interviewees. On the other hand ENT09 explained that there was a possibility to apply for start-up grants, but at that time it was not needed. For ENT08 the situation was difficult as the interviewee was working abroad during the opportunity exploitation phase and due to that reasons the interviewee was not qualified to apply for the start-up grant.

The governmental incentives also include supporting systems, which consist of governmental actions or services towards supporting the sustainable entrepreneurship. The support was explained by EXP03 with an example where government set prior goals that are asking for sustainable entrepreneurship for certain areas or fields. These goals were also experienced by ENT06 who agreed that these would create new opportunities and help sustainability-driven entrepreneurs to compete with more traditional products and services. This was also seen as a very important issue in order to motivate sustainability-driven entrepreneurs. ENT04 explained that the competition is difficult with more sustainable services as the cities only see value in the money and not in the sustainability. Furthermore ENT01, ENT05 and ENT07 experienced assistance from different governmental entities in terms of counseling, advice and money.

ENT05: “At this point we also got support from the one Governmental entity, which support was a huge help and we also were able now to grow our inventories.”

The third type of incentives was governmental advice services, which were described by ENT01, ENT04 and ENT06. These services were offering more of a counseling and help for solving typical problems occurring when starting one’s own business. Furthermore ENT04 told that the entrepreneurial education program was really essential as there you learn the basics of running a business.

ENT04: “I got some technical advises of how to start and plus the start-up grant. I also went through the entrepreneur education program in order to have that start-up grant.”

In addition the government also sets laws and are controlling regulations, which have a huge impact on the sustainable entrepreneurship and for the interviewees. Moreover this was experienced by ENT01, ENT02, ENT04, ENT06, ENT08 and ENT09 with different outcomes and opinions. The positive effects was left quite bland as most of the ENTs experienced laws and regulations as not good enough and for example ENT09 saw them more restrictive than helpful. Regulations were hoped to be stricter enhancing sustainability. ENT06 felt that regulations are too volunteering to follow and due to this do not have a meaningful effect. This argument was also supported by EXP03 and EXP01 who stated that governmental laws and regulations being underdeveloped in order to be motivating. For ENT01, ENT02 and ENT04 regulations were visible and had an effect, but it was seen too little to be meaningful.
EXP03: “In fact I see the situation as follows, that laws prevent the sustainable development or the sustainable development becomes a mantra that is repeated so much it destroys already existing businesses and does not make it possible for new businesses to emerge.”

Despite the government having a huge part of the regulative motivations, the public incubators were seen as a very important supporting and motivating factor for sustainability-driven entrepreneurs. The incubator was experienced by ENT01, ENT02, ENT05 and ENT07 as they all saw it as a motivating factor. Moreover the incubator was seen as a vital actor for ENT05 and ENT07 as it offered business knowledge, which entrepreneurs were lacking and which was an essential factor for the opportunity forming and exploitation process. Furthermore incubators offered entrepreneurs connections and help in networking. This was experienced by ENT01, ENT02, ENT05 and ENT07. The incubation period was explained by the EXP01 being very important as there entrepreneurs could meet the people with same situation, which helped them to solve problems and share experiences.

ENT07: “During incubation period there was a good variety of different companies where we could get support from the one’s who are in the same situation as us.”

The regulative factors provided additional sources of motivation, more precisely competitions and awards. ENT05 and ENT07 experienced a young entrepreneurs international competition as a motivating factor to continue the opportunity formation and exploitation process. Moreover awards were seen as important in terms of economic assistance, but also as a public recognition.

4.7.2 Normative

After discussing the more tangible regulative factors the conversation was steered into a more vague area, where for example how values and norms have affected the entrepreneur's journey in the sustainability-oriented opportunity forming and exploitation process. These normative aspects got wide variety of answers and were showing many supportive arguments of why these needs to be seen as motivating factors in the sustainable entrepreneurship.

First the interviewees brought up the cultural environment in Finland. According to ENT09 and EXP01 the cultural environment in Finland does not support entrepreneurship. However ENT08 stated that the situation is getting better and for example the industrial culture is now moving towards a more sustainable operations, which EXP03 linked with new sustainability-oriented opportunities. Furthermore EXP01 agreed that the supportive cultural environment is important and a cultural environment in firms must also support innovations and sustainability in order to create new sustainability-oriented opportunities.

EXP01: “Environmental orientation and sustainable development must be created as a big part inside the company's set of values so it is then part of everything.”

Regarding the norms ENT01, ENT02, ENT03, ENT04, ENT05, ENT06, ENT07, ENT09, EXP01 and EXP03 stated that norms are important and they have an effect on motivation. The consumption norms in overall were seen as the most important. The
most effective consumption norm according to our interviewees is that people are now more willing to buy environmentally friendly products and services (ENT04, ENT05, ENT06, ENT07, ENT09, EXP01 and EXP03). According to the ENT04 this change has made it possible for sustainability-driven entrepreneurs to better compete as the value is now seen also in sustainability and not only in the price. EXP01 and EXP03 similarly stated that normative motivations are also formed from personal values that further are accumulating from external sources.

ENT07: “Consumer's quality requirements and the interest towards the origins of the products has been a motivating factor for us.”

Moreover the consumption norms have been transformed so people are more careful with their money and EXP03 explained that it goes in line with the current economic situation. ENT01, ENT02, EXP01 and EXP03 agreed that this has effects on people’s consumption behavior. The specific situation forces people to save money whenever it is possible and can therefore be seen as a motivating factor. According to ENT02 when a sustainable product or service is saving money the effect is positive, but when costs are higher the effect is seen as a more negative (ENT04). Moreover the argument goes in line with the energy consumption norms, which ENT02, ENT03, ENT05, ENT07 and EXP03 stated to be an important factor motivating sustainability-driven entrepreneurs.

Further ENT03, ENT06 and EXP01 argued that despite the culture and social norms trends have a significant impact on what people want. Moreover trends seem to have a powerful impact and according to ENT06 sustainability is considered now as a megatrend and therefore it also opens up new opportunities. EXP01 continued that trends have an ability to change what people want and it can overcome many other aspects. ENT03 explained more that it is highly due to what media is showing and supporting.

ENT03: “[...] It follows trends and certain medias, which determine what people are drumming for.”

**4.7.3 Cultural-Cognitive**

According to the empirical data, social networks play a significant role in the entrepreneur's journey in the sustainability-oriented opportunity forming and exploiting process. The support from the family was seen as important by ENT04, ENT05 and ENT07 when they provided arguments about the idea realization. Moreover EXP01 and EXP03 saw the family as a motivating factor by when a family member had an entrepreneurial background. Furthermore the input from friends and colleagues was seen important by ENT02, ENT03, ENT04, ENT05, ENT07, ENT08 and ENT09 as they provided arguments considering the idea realization as well as a more practical support in terms of idea development. ENT03, ENT04 and ENT07 also experienced some support from other firms.

ENT04: “Friends were playing a big part in the ideation process and they were a huge support and source of knowledge during the process.”

In conclusion our interviewees did experience that they were supported by cultural-cognitive factors, but the support they got was not that meaningful when it comes to
deciding whether or not to pursue an opportunity into a business. Moreover there was evidence that the three pillars of regulative, normative and cultural-cognitive have an impact in different stages of the opportunity process. Roughly from the empirical data it can be stated that the cultural-cognitive factors were originally affecting the opportunity formation process. The normative pillar was seen to be affecting in both of the formation and exploitation processes, whereas the regulative pillar was more present in the exploitation phase. Although the results were not linear in supporting these perceptions, it can be stated that this was the overall ruling order. Finally as EXP01 stated that all external support or help is very important when establishing and running a firm. The statement reflects that all three pillars offer sources of motivation, but in many cases these are overlapping.

4.8 Interactions Between Entrepreneurial and Institutional Motivations

The final part of the interview aimed to investigate what is the level of intensity and impact of entrepreneurial and institutional motivations in different stages of the sustainability-oriented opportunity forming and exploitation process. Interestingly the empirical data in several cases was rather similar than different revealing consistent patterns in motivational interactions.

When the impact of entrepreneurial motivations in different stages was considered, the empirical data in various cases provided similar interviewee perceptions throughout the process. ENT01 and ENT02 brought up notions, which highlighted the strong motivational effect of entrepreneurial motivations at the early stages of the process. ENT04 followed their line of argumentation by enhancing the nAch, drive and passion as strong motivational factors in the beginning. Similar notions were discussed with ENT05 and ENT07 who considered internal motivations as the foundational factors, which were driving them forward especially in the opportunity formation phase. In addition ENT06, ENT08 and ENT09 strongly argued that entrepreneurial motivations were the main motivational factors right from the beginning and these factors similarly overrun all the other motivational factors at this stage.

EXP interviewees provided more general indications regarding the importance of entrepreneurial motivations. EXP01 explained that when considering entrepreneurial motivations in the sustainable entrepreneurship context their role should be seen as vital, but in many cases the strong motivational effect can turn as negative if the entrepreneur gets blinded by these motivations. EXP02 highlighted that personal hunger, passion, enthusiasm as well as drive are motivational factors especially in the beginning of the process. EXP03 agreed, but also stressed that it is an individual dependent factor, although the role of entrepreneurial motivations is a strong element in many cases.

The empirical data revealed one case, which brought up differences in the strong role of entrepreneurial motivations at the early phase of the opportunity process. ENT03 saw institutional motivations as key factors having a strong motivational impact. The interviewee described that external resources and structures had a strong effect and without these the opportunity process would not have started in the first place. On the other hand ENT03 revealed that the interviewee initially developed the original idea and the effect of institutional motivations was considered more as “the last push”.
ENT03: “I developed the idea few years under a name of [Name of the original concept] and thought that there could be demand for this. The fact that I got external resources etc. was the last push. Alone I wouldn’t have proceeded with this. [...] This is so finance dependent business.

If the role of entrepreneurial motivations were higher in the early stages of the opportunity process, majority of interviewees saw the impact of institutional motivations as weak in the similar phase. Especially ENT01 and ENT02 highlighted the weak role of institutional motivations in this phase whereas ENT08 and ENT09 further explained that these motivational factors did not have any effect in the beginning. ENT05, ENT06 and ENT07 identified a weak effect, but further praised the encouraging role of entrepreneurial motivations in this context. In this context ENT03 perceived the role of institutional motivations as opposite, but highlighted that there were also strong entrepreneurial motivational factors behind the process. Similarly EXP01 described the role of institutional motivations as important in the early phases as well whereas EXP02 downplayed the effect of these external factors and EXP03 highlighted that currently institutional factors do not enable motivational effect at least in the beginning of the opportunity process.

When discussed about the interactive nature of entrepreneurial and institutional motivations in the beginning of the opportunity process, interviewees perceived the interaction as weak. ENT01 saw the interaction as a more neutral and ENT02 described the early phases in terms of almost non-existent interaction. ENT06 highlighted examples that indicated identified interaction, but the role of entrepreneurial motivations were received so strong excluding heavy interactional activities of these two motivational factors. The similar notion was discussed by ENT05 and ENT07, whereas ENT08 and ENT09 did not exemplify any interactional features during the early phases of the process. EXP02 called for less restrictive role of institutional factors, which in turn could similarly enhance the interaction. EXP03 followed the similar line of the argumentation as ENT interviewees by explaining that in many cases the interaction is stronger in the later phase of the opportunity process. ENT03 described different perspective by arguing that in their case the interaction was certainly strong, which continued throughout the process.

When questions were guided to reflect interviewees’ motivational factors during the opportunity exploitation process, interactional nature changed into a more active approach. Entrepreneurial motivations remained rather strong, but many interviewees described that institutional motivations in all forms were more visible in this stage. ENT01 and ENT02 highlighted that especially regulative and normative factors had an effect on the process, which similarly had impact on their entrepreneurial motivation in a larger extent than in the opportunity forming phase. ENT04 described that although all institutional factors did not support the overall motivation, there were positive motivational drivers especially from the cultural-cognitive sources. “The last push” effect of institutional motivations was similarly discussed in this context. ENT05 and ENT07 described that institutional motivations were further increasing their personal motivation and their role was much higher in the opportunity exploitation phase rather than in the opportunity forming phase by giving them the final motivational push. Although ENT06, ENT08 and ENT09 did consider that institutional motivations had minor effects on their cases, all interviewees were able to identify that institutional structures have motivational factors that can affect the entrepreneur during the
opportunity exploitation. From the expert side EXP01 further recognized the role of institutional motivations by stating “external support is important while it can motivate in itself and maybe enable higher effort and encourage to try things” (EXP01). ENT02 described the motivational importance of social networks, which grew in terms of size as well as importance during the process.

ENT02: “Let’s say that the network has expanded during the process. [...] It has grown when we have gone further and I have realized its importance and meaning.”

According to the interviewees the importance of institutional motivations continued to increase in the value creation stage. EXP02 especially highlighted the role of institutional motivations in this stage while these external factors determine, if there eventually will exist a market demand and the firm has prerequisites to survive. ENT01, ENT02, ENT03, ENT05, ENT06, ENT07 further described that institutional motivations have the strongest effect on this stage, but responses varied in terms of if the influence was more positive or negative. For example ENT07 discussed that in the beginning the personal drive was the determining factor, but institutional elements increased their importance during the process enabling the more co-evolving motivations. On the other hand ENT04 provided strong indications that the effect of institutional factors have had a strong motivational effect on the personal motivation, but currently the strong effect of institutional factors had lead to a lower levels and higher importance of entrepreneurial motivations. EXP02 came to a similar conclusion by bringing up the notion that in the beginning internal motivations are driving the individual further, but external factors enhanced their importance during the time. In addition EXP02 explained that the entrepreneur can have strong internal motivations throughout the process, but their impact decreases whereas institutional factors replace them.

ENT04: “Now and then it feels like for example I can’t keep it going anymore, but in the beginning the drive and passion were stronger, which lead to a more extensive actions for example in terms of marketing.”

As a conclusion for the motivational interactions section, the empirical data revealed that the interactional activity is a complex part to explain. Despite the complexity interviewees were able to provide a clear pattern during the process. In several cases entrepreneurial motivations have the highest effect in the beginning, but their impact decreases later on. On the other hand institutional motivations do not have a strong impact in the beginning, whereas their importance was considered to be high in the opportunity exploitation phase. Motivational interactions followed the similar path while interviewees described interactional activity to be weak when the opportunity was formed, but over the time the effect continued to increase.
5 Analysis and Discussion
The following chapter aims to analyze and discuss the empirical results together with the theoretical framework. The analysis follows the similar structure utilized in the empirical findings chapter. The first part of the chapter concentrates on the sustainability-driven entrepreneurial firms, opportunity process and value creation dimensions. The latter part is dedicated on analyzing entrepreneurial and institutional motivations together with the motivational interactions. Finally analyzed findings are used to revise the framework of motivations in sustainable entrepreneurship.

5.1 Characteristics of Sustainability-Driven Entrepreneurial Firms
Regarding discussed features of sustainability-driven entrepreneurial firms in the theoretical framework and empirical data, the results can be seen as being almost harmonic with theoretical assumptions. Exceptions in terms of characteristics were found only from one interviewee who was suffering from the external circumstances that were out of interviewee’s control. By analyzing the reason being external it can be kept as exceptional and not necessarily as a common situation. By this we can state our sample firms reflecting with the suggested characteristics and with the definition of a sustainability-driven entrepreneurial firm (Carland et al., 1984, p. 358; Covin & Slevin, 1991, p. 7; Hockerts & Wüstenhagen, 2010, p. 483; Luger & Koo, 2005, p. 19; Runyan et al., 2008, p. 583; Schaltegger & Wagner, 2011, p. 226; Wiklund et al., 2009, p. 359).

In more detail, all interviewees provided perceptions supporting the assumptions from the start-up literature concerning newness, activeness and independency (Luger & Koo, 2005, p. 19). Moreover market-oriented, personality driven and self-sustained nature of firms (e.g. Carland et al., 1984, p. 358) were similarly unanimously identified by all interviewees to reflect the operational nature of the firms. Growth-orientation, which is similarly one of the essential feature of the entrepreneurial firm (Carland et al., 1984, p. 358) was mirrored in the empirical data expect of one interviewee. As discussed the interviewee perceived growth to represent the ideal approach, but due to the external circumstances it is not a feasible approach in the current situation.

Further exceptions occurred in one case when mirrored its operations through the EO. In this context the chosen features from the EO literature were innovativeness, risk-taking and proactiveness (Runyan et al., 2008, p. 567; Wiklund et al., 2009, p. 367). As majority of the firms recognized all three features to be closely related to the operational environment, one of the interviewees perceived risk-taking and proactiveness as nonexistent features in current operations due to the negative development in the external environmental context. When reflecting this with the theory it can be stated that a firm lacking these characteristics lowers its ability to operate under uncertainty and competition (Covin & Slevin, 1991, p. 10). The empirical data reflected with the theoretical assumption indicating feasibility of the entrepreneurial firm literature in the sustainable entrepreneurship context.

For interviewees some of the characteristics were hard to understand and reflect with their operations. Due to this there was a need to lead the interviewed person to understand of how a certain dimension could exist in the one’s firm. As an example few interviewees questioned the dimension of risk-taking as they argued risk being always present when running one’s own business and they suffered of how to answer this question. However the challenge was clarified by explaining more of how interviewers
perceived it and how it refers to assumptions of the EO (Lumpkin & Dess, 1996, p. 151).

In conclusion by following our empirical data and analysis the findings confirmed the theoretical assumptions driven from the start-up, entrepreneurial firm and EO literature. In addition the empirical data revealed that sustainability-driven entrepreneurial firms are characterized with the sustainable value creation. Despite the one case, which lacked features of growth-orientation, risk-taking and proactiveness due to the external circumstances, all sample firms were internalizing the characteristics and were qualified for this study.

5.2 Opportunity Forming and Exploitation

As our theoretical framework considers lucrative opportunities and enterprising individuals (Venkataraman, 1997, p. 121) to be the main constructs in the sustainable entrepreneurship as well as in other forms of entrepreneurship, we begin to analyze the data accordingly. In the following section we analyze the collected data together with theoretical perspectives related to the opportunity forming and exploitation process. The aim is to construct a coherent view about how the opportunity process is constructed in the sustainable entrepreneurship.

In the context of sustainable entrepreneurship, Pacheco et al. (2010, p. 464) claimed that entrepreneurs and their innovative power are the factors leading to a more sustainable future. Majority of interviewees confirmed the individual entrepreneur approach by describing their individual process to be a contributing factor in the opportunity forming and exploitation process. In addition some interviewees claimed that the process had started from the individual level, but after some time they included other enterprising individuals into the process. In one case the process even started with a more than one individual, but each shared similar view and goals from the beginning.

Interestingly one interviewee described situation in where the opportunity process started in a co-operation with corporate individuals although the interviewee initially developed the idea. Here we can draw linkages with the critical approach by Hockerts & Wüstenhagen (2010, p. 482) that sustainable development might not be only achieved through entrepreneurship. In this case it was a more co-evolutive process of entrepreneurial and corporate activities as suggested by Hockerts & Wüstenhagen (2010), which lead into the opportunity forming and exploitation process. Despite the proof of co-evolutive nature of the process, the central findings highlights the role of enterprising individuals in the sustainable entrepreneurship and confirms the dominant theoretical view in the entrepreneurship literature (Venkataraman, 1997, p. 121) to be suitable in the sustainable entrepreneurship context as well.

Although Shane & Venkataraman (2000, p. 218) criticized the entrepreneurship literature to concentrate too much on individuals, study findings indicated that they have an influence on the existence of entrepreneurship as well as sustainable entrepreneurship. Similarly all interviewees discussed about the existence of opportunities in the market, which acted as a foundational trigger for the further actions. The empirical data creates clear linkages to the claims that without opportunities there are no entrepreneurship (Shane & Venkataraman, 2000, p. 220; Short et al., 2009, p. 40) or sustainable entrepreneurship (Cohen & Winn, 2007, p. 35; Dean & McMullen, 2007,
p. 58; Hockerts & Wüstenhagen, 2010, p. 482; Pacheco et al., 2010, p. 471; Shepherd & Patzelt, 2010, p. 142). In additions interviewees in some cases described that the existing market failure (Dean & McMullen, 2007) lead to the opportunity process. The empirical data also revealed that some opportunities were created based on the identified personal need, which could not be met through existing solutions in the market. Interestingly third dimension considered “doing things better”, which referred that either there was an existing solution in the market, but the potential value has not been achieved or the opportunity with the highest value has never been exploited to the market. When reflecting the empirical data together with the definition of sustainability-oriented opportunities (Eckhardt & Shane, 2003, p. 336; Schlange, 2009, p. 18) interviewees perceptions mirrored these definitive factors. Sustainability-oriented opportunities do not seem to differ greatly from entrepreneurial opportunities (Eckhardt & Shane, 2003, p. 336). The differences concern the value creation beyond the profit as well as opportunities in the sustainable entrepreneurship goes beyond episodic processes, which is commonly described in relation with entrepreneurial opportunities (Casson 1982, cited in Shane & Venkataraman 2000, p. 220). In this context sustainability-oriented opportunities are also allowing creative entrepreneurial decision-making and recombination of resources (Chiles et al., 2007, p. 476; Eckhardt & Shane, 2003, p. 336).

As opportunities were identified together with the entrepreneur to construct the foundational base in the sustainable entrepreneurship, interviewees had different assumption concerning different opportunity processes (Sarasvathy et al., 2005, p. 146). In line with the argument from Ardichvili et al. (2003, p. 106) none of the interviewees described a situation where an opportunity was just founded. The reflections either highlighted the existence of a market demand without a supply or an environment where the supply and demand were nonexistent. Findings are contradicting with the conventional entrepreneurship research where opportunity recognition, discovery and creation theories (Sarasvathy et al., 2005, p. 146) are all defining the opportunity process. Based on the findings the sustainable entrepreneurship only concerns opportunities, which are correcting market failures (discovery) or creating new means as well as new ends (creation), which further strengthens our definition of sustainability-oriented opportunities (Eckhardt & Shane, 2003, p. 336; Sarasvathy et al., 2005, p. 146; Schlange, 2009, p. 18).

On the contrary the empirical data did not provide any evidence that in a case of a non-existent supply and demand, uncertainty was managed through effectuation as Sarasvathy et al. (2005, p. 146) argued. Rather interviewees described uncertainty management processes to correspond only with experimentative actions, although risk probabilities could not been calculated in all situations, which refer to the more uncertain decision-making environment with unknown risk probabilities (Knight, 1921). The findings challenged the Knightian uncertainty model (Knight, 1921), because majority of interviewees brought up the existence of uncertainty, but it was more or less considered as an interrelated factor with the risk. In addition the empirical data did not provide indications that risky and uncertain decision-making differs in terms of calculable probabilities (Knight, 1921, p. 268) or that higher uncertainty would enhance opportunity exploitation through sustainability-driven entrepreneurial firms instead of existing firms (York & Venkataraman, 2010, p. 454). Remarkably the strong interrelation between the risk and uncertainty were described almost all interviewees, which challenge the assumptions of opportunity discovery and creation theories that
Consider risky decision-making context only in relation with the opportunity discovery theory and uncertain decision-making context correspond with the assumptions in the opportunity discovery theory (Alvarez & Barney, 2007, p. 13). Interviewees especially linked financial uncertainty with the decision-making further enhancing the overlapping nature of the opportunity discovery and creation theories (Alvarez & Barney, 2007; Hmieleski & Baron, 2008) in the sustainable entrepreneurship context.

Similarly, the nature of opportunities was discussed to have interrelated factors between these two opportunity theories. The opportunity discovery theory assumes that opportunities exist independently from entrepreneurs as a result of exogenous shocks like changes in consumer taste, technology and/or resource availability (Hmieleski & Baron, 2008, p. 285; Kirzner, 1973, p. 10; Shane & Venkataraman, 2000, p. 221). According to the opportunity creation theory opportunities are dependent from the entrepreneur (Alvarez & Barney, 2007, p. 13). Although some interviewees could be categorized as emphasizing the principles of opportunity creation theory, their interpretations highlighted the existence of exogenous shocks (e.g. technological changes) when the nature of opportunities was considered. These findings seem to indicate that the central assumptions of both theories (Alvarez & Barney, 2007, p. 13) are more overlapping in the sustainable entrepreneurship context than they are in the conventional entrepreneurship research. In addition, the empirical data supported the argument from Pacheco et al. (2010, p. 470) that sustainable entrepreneurship cannot be studied only through the opportunity discovery theory. The nature of overlapping assumptions as well as the equal distribution of interviewees in both theoretical categories (see table 7) indicated that both theories are needed, if the aim is to create a more accurate view related to the phenomenon.

One essential part of our framework as well as the opportunity process concerns the opportunity evaluation. Based on the empirical data all interviewees acknowledged the role of the evaluation, but its role on different stages varied. As some interviewees saw the evaluation more visible in the beginning of the opportunity process, others saw its role to be linked more in the later phases. Despite the different perceptions, the majority of interviewees highlighted the continuous nature of evaluation, which support the theoretical assumptions made by Short et al. (2009, p. 55) and Ardichvili et al. (2003, p. 118). In addition, the empirical data revealed that e.g. resource costs, financial resources and opportunity costs (Alvarez & Busenitz, 2001; Ardichvili et al., 2003; Shane & Venkataraman, 2000) are under continuous evaluation, which indicates the suitability of opportunity evaluation assumptions derived from the conventional entrepreneurship research into the sustainable entrepreneurship context.

When discussing about the opportunity exploitation it needs to be considered that the primary empirical sample was consisted of nine entrepreneurs, which could create a bias when considering analysis related to the forms of opportunity exploitation. In addition we collected data from three experts who have experience from the sustainable entrepreneurship in order to mitigate the data bias. Majority of interviewees confirmed that the exploitation decision was dependable on the nature of the opportunity and individual (Venkataraman, 1997). In this context the exploitation decision was influenced by the opportunity value, which was perceived to be higher than the opportunity cost (Shane & Venkataraman, 2000, p. 222). Additionally, few interviewees expressed that the opportunity exploitation through a new firm enabled them to express themselves, which can be similarly linked with the opportunity discovery and creation
theories (Alvarez & Barney, 2007, p. 13). On the contrary the empirical data revealed that uncertainty does not have a high effect on the exploitation decision, it is rather a factor in the growth phase. Therefore results indicated that in the sustainable entrepreneurship context the opportunity exploitation decision is more dependable on the nature of the opportunity and individual (Alvarez & Barney, 2007; Venkataraman, 1997) rather than the uncertainty factor (Knight, 1921).

When considering the practical forms of the opportunity exploitation, the empirical data indicated that appropriate exploitation modes follow the theoretical assumptions from the conventional entrepreneurship research (Shane & Venkataraman, 2000, p. 224). Based on the interviewees’ perceptions the dominant exploitation mode is a new firm, but during the evaluation process individuals similarly considered other options. The main reason for excluding existing firms did not seem to correlate with the level of uncertainty (Knight, 1921; York & Venkataraman, 2010, p. 454). According to the empirical data existing firms do not perceive that the innovative product or service fit into their core business model or existing firms do not have a prominent core product or service, which assures continuous value creation in the case of a failure after the resource binding opportunity exploitation. Although these features in some stage can be linked with the existence of uncertainty (e.g. uncertainty regarding the successfullness of the sustainability-oriented product or service) further analysis would require additional data from existing firms.

In addition to the establishment of a completely new firm by an entrepreneur, corporate spin-offs were considered as potential exploitation channels for sustainability-oriented opportunities. The exploitation through spin-offs would not cannibalize the core business and would give time for the existing firm to evaluate the level of value creation, which goes in line with the assumptions in the theoretical framework (Shane & Venkataraman, 2000, p. 224). Surprisingly the empirical data did not reveal supportive arguments regarding the imitative actions by “Greening Goliaths” (Hockerts & Wüstenhagen, 2010). Rather the empirical data indicated that imitative actions were taken competitors that could be similarly considered as “Emerging Davids” or as new sustainability-driven entrepreneurial firms.

Finally the empirical data revealed additional perceptions considering the duration of the opportunity forming and exploitation process, which in our understanding has not been discussed earlier in the sustainable entrepreneurship context. Accordingly the opportunity formation and exploitation can be a more rapid or longer process depending on the circumstances or the nature of the entrepreneur. Based on the empirical data the duration of the process does not seem to indicate linkages with any specific opportunity theories or other theoretical assumptions and it could be considered to present as a potential subject for future studies.

5.3 Sustainability and Sustainable Value

The empirical data provided different assumptions regarding what is considered as sustainable development or sustainable entrepreneurship. According to interviewees sustainable development can be considered as a continuous development, value creation through the double bottom line (Belz & Binder, 2015, p. 2; Zahra et al., 2009, p. 521-522) or 3BL (Elkington, 1999, p. 397). Mixed perceptions indicate that sustainable
development is further considered as a complex or controversial concept, which supports arguments from Hall et al. (2010, p. 439).

In the literature, sustainable development can be divided between a strong and weak sustainability (Heikkurinen & Bonnedahl, 2013, p. 193). As strong sustainability concerns trade-off view between the profit-making and sustainable development (Heikkurinen & Bonnedahl, 2013, p. 193), the empirical data did not provide perceptions supporting the strong sustainability view. On the contrary interviewees did not exclude economic value creation out of the sustainable development context. For some of the interviewees profit was the main motivation whereas sustainable development was considered as a byproduct rather than the primary goal of the firm. In addition the economic value was considered as a necessity in order to even create additional value through the operational functions, which is similarly a visible approach in the social entrepreneurship literature (Dacin et al., 2011, p. 1205). Accordingly the empirical data indicated that the sustainable development can be considered through a weak sustainability, which sees profitability not excluding the sustainable development and enables quantitative growth rather than only concentrating on qualitative improvements (Heikkurinen & Bonnedahl, 2013, p. 193; Parrish, 2010, p. 512; WCED, 1987, p. 24).

The theoretical framework processed the sustainable value through the 3BL approach (Elkington, 1999, p. 397), which is similarly mirrored from the empirical data. In this context the interesting interpretation considered the clear existence of value creation based on all 3BL dimensions when evaluated by an external observer (interviewer). Interviewees in several cases were able to define all value creation aspects, but when asked directly responses indicated that in many cases value creation approach was similar with the conventional entrepreneurship (Parrish, 2010) or with environmental entrepreneurship (Cohen & Winn, 2007; Dean & McMullen, 2007) assumptions. Linkages to the environmental entrepreneurship were common, which further highlights the overlapping theoretical assumptions between the environmental and sustainable entrepreneurship as argued by Thompson et al. (2011, p. 214).

In addition the empirical data did not reveal any exact patterns when the environmental value creation (Anderson, 1998, p. 139) was considered, but the majority of interpretations supported the assumption that value can be created through new products, services, techniques and organizational modes, which reduces the environmental impact and improves the quality of life (Schaltegger, 2002, p. 46). The environmental value was commonly created through environmentally friendly solutions related to the energy consumption or efficient use of energy for different purposes, which accumulated directly or indirectly from the economic value (Haugh, 2006, p. 186-187). In addition the environmental value creation was described through environmental friendly services as well as through 100% recyclable products and through a solution aiming to enhance the 100% use of specific raw material, which reduces the amount of waste that remain with traditional solutions. Overall perceptions extended argumentations from Haugh (2006) and Parrish (2010) regarding different environmental value creation factors.

As our approach to the social value creation is similar to the conventional, environmental and sustainable entrepreneurship the analysis concerning the third dimension of 3BL can be drawn similarly from the empirical data. The majority of
Interviewees highlighted the social value creation through an individual itself in a form of self-realization. Haugh (2006, p. 186-187) provided similar assumptions by claiming that the personal social value creation can be seen as a firm’s direct or indirect social outcome. In addition the empirical data indicated that the social value is the outcome of a bargained deal and as a transaction consequence when producing bundle of values (Austin et al., 2006, p. 5). In this context firms were embedded to extend their value creation outside the single value (e.g. profit) scope, which according to the empirical data can be mirrored through the 3BL dimensions. Similarly operational functions contained regular bargained deals, which in turn enabled the further value creation.

Although the social value creation through individual was perceived to be a common factor, the empirical data similarly revealed the social value creation in favor of a third person or stakeholders (Patzelt & Shepherd, 2011, p. 634). Interviewees approached the value creation through employment opportunities, which according to Littig & Griessler (2005, p. 73) further develops individual’s income, housing conditions, social networks and quality of life in general. These employment opportunities were discussed either from the self-employment perspective or by defining new employment opportunities through the interviewee’s firm and stakeholders. In the similar vein, social value created through an employment correspond to the factors described by Haugh (2006, p. 186-187) and Austin et al. (2006, p. 5).

Interestingly only one of the interviewees clearly supported the social value creation assumption concerning individual’s altruistic motivations apart from the employment factor (Austin et al., 2006, p. 5; Patzelt & Shepherd, 2011, p. 634). This specific mode of social value creation is more commonly linked with the social entrepreneurship or with the sustainable entrepreneurship in situations when the value creation is examined through dimensions of 3BL and all dimension are considered to create greater value than the sum of its parts (Austin et al., 2006, p. 5; Schlange, 2009, p. 22). Accordingly the rather strong emphasis on the economic value creation together with other value creation modes visible in interviewees’ perceptions could hinder the occurrence of altruistic behavior in this context or its suitability as a value creation factor might be stronger in the social entrepreneurship context.

The most interesting finding from the empirical data concerns the different forms of value creation. As presented in the theoretical framework, Smith & Stevens (2010, p. 586) and Zahra et al. (2009) divided the social entrepreneurship in three different forms based on the level of structural embeddedness and geographic scale and scope of value creation. In this model the social bricoleurs act and create value in a more local context, the social constructionists concentrate on local and international contexts, whereas the social engineers are dealing with national and global social needs (Smith & Stevens, 2010, p. 585; Zahra et al., 2009, p. 523). When considering the level of structural embeddedness social bricoleurs are more embedded with local stakeholders and resources while social engineers are less embedded to their functional environment, which enables them to scale up functions more flexible (Smith & Stevens, 2010, p. 587). Drawn from the empirical data the similar approach can be adapted to the sustainable entrepreneurship context and different forms of sustainable entrepreneurship are presented in figure 10.
The empirical data revealed that some interviewees described the scope of the firm’s sustainable value creation as a geographically more local, but only one of the interviewees were strictly embedded to the local resources and stakeholders. Accordingly the functional setting indicates a form of sustainable bricoleurs portrayed similarly in figure 10. Hockerts & Wüstenhagen (2010, p. 483-484) argued that bricoleurs are not keen to create sustainable value in a wider context and should not be considered to fulfill descriptive factors considering the sustainable entrepreneurship. According to the empirical data there are some evidence that sustainable value can be created similarly in a local context and with high levels of structural embeddedness, but the indication is based only on responses of a single interviewee. In addition one interviewee explained that the sustainable value creation is more local in its nature, but due to the specific circumstances they have been forced to decrease local embeddedness despite the original goal. Similarly one of the interviewees explained that they are considering to increase their local embeddedness if possible, although currently the embeddedness is more domestic or even in some cases global, but their sustainable value creation was further considered to correspond the more domestic than local scope. Accordingly there are indications considering overlapping nature of sustainable bricoleurs and constructionists also depicted in figure 10 as Smith & Stevens (2010, p. 586) similarly highlighted in the social entrepreneurship context.

Second category of sustainable constructionists was similarly identified from the empirical data. Two interviewees explained that the sustainable value creation covers more domestic scope and the level of structural embeddedness were considered to be lower than in the sustainable bricoleur category. One interviewee described that in some extent the embeddedness varies depending on the circumstances further highlighting the overlapping nature of sustainable bricoleurs and constructionists. Interviewees in both categories identified embeddedness to be the main constraint for scaling up operations to correspond more global scope, which further enhances the suitability of theoretical
assumptions of Smith & Stevens (2010) and Zahra et al. (2009) transferred into the sustainability entrepreneurship context.

Differences can be found from the sustainable engineer category, which were reflected through three interviewees, compared to the social engineers. One interviewee clearly described that the sustainable value creation has a global geographical scope together with low levels of structural embeddedness. On the other hand there were perceptions, which highlighted the global sustainable value creation, but with higher levels of structural embeddedness arguing against the original model (Smith & Stevens, 2010, p. 586). Accordingly the sustainable engineer in figure 10 has been portrayed to have global scope in the sustainable value creation also enabling a higher level of structural embeddedness as well as the overlapping factors with the other forms of sustainable entrepreneurship. In addition sustainable engineers were capable of scaling up their sustainable value creation capabilities without difficulties, which is similarly supported by Smith & Stevens (2010, p. 587).

As a conclusion it can be stated that several interpretations from the empirical data corresponds with the theoretical framework especially in the sustainable value creation context. The empirical data further highlights the suitability of the 3BL approach integrated into the sustainable entrepreneurship context as well as support arguments from Slaper & Hall (2011, p. 5) that there are no universal measurement standards for the 3BL and the concept can be adapted based on the context. The most contributing factor can be drawn from the figure 10, which adopts the forms of social entrepreneurship approach to be suitable in the sustainable entrepreneurship context with small modifications. As discussed in the theoretical framework it enables the avoidance of the “black box” phenomenon where sustainable value creation has been only stated without any further clarifications (Gibbs, 2006, p. 65; Parrish, 2010, p. 521). Similarly the empirical data revealed concrete sustainable value factors, which additionally clears vagueness around the 3BL and sustainable entrepreneurship.

5.4 Entrepreneurial Motivations in Sustainable Entrepreneurship

One of the essential parts of the study considers the exploration of entrepreneurial motivations leading to the entrepreneur’s decision to form and exploit sustainability-oriented opportunities. The empirical data indicated that human motivations are a relevant factor when studying the sustainable entrepreneurship and opportunity process in this context (Shane et al., 2003, p. 269; Shepherd & Patzelt, 2011, p. 155), but there are other motivational factors included as well.

The conventional entrepreneurship research considers profitable opportunities and growth as the main motivational factors concerning individual actions (Carland et al., 1984, p. 358; Shane & Venkataraman, 2000, p. 222). Considering sustainable entrepreneurship the empirical data indicated that opportunities, which lead to a profit and growth, are similarly present in this context. Some interviewees explained that they were motivated by the necessity factor, which can be linked with the opportunity perspective. If the entrepreneur is motivated by the necessity, the opportunity provides a foundational platform for the individual to utilize the motivation, which creates an integrative approach between these two motivational factors. In addition there are other motivational factors present, which are in some extent even more vital for the
entrepreneur than the profit and growth similarly supporting arguments from Amit et al. (2000, p. 120). These are analyzed in the following sections.

Kuckertz & Wagner (2010, p. 524) and Parrish (2010, p. 510) divided entrepreneurs either as opportunity- or sustainability-driven entrepreneurs depending on the ultimate motivation concerning the value created in terms of economic or sustainable value. The empirical data did not indicate that there are clear differences in motivations between these two types of entrepreneurs, although none of the interviewees can be described to represent sustainability-driven features in full extent. Rather results showed that in the sustainable entrepreneurship context entrepreneurs are opportunity-sustainability motivated whereas the economic value is a necessity as well as desirable, but it does not exclude the sustainable value out of the scope of the entrepreneur or there was no indication that profitable firm prevents a wider value creation (Kuckertz & Wagner, 2010, p. 524; Parrish, 2010, p. 510). In several cases the foundational motivation did not correspond in the beginning with factors related to the sustainability-driven view. Rather sustainability was highlighted to have a stronger motivational impact in the later phases of the opportunity process.

Accordingly interviewees considered personal values as a motivational source leading to the sustainability-oriented opportunity forming and exploitation process. The finding supports the assumptions made in the theoretical framework (Kuckertz & Wagner, 2010, p. 524) where environmental and social concerns presented motivational factors in the sustainable entrepreneurship. The majority of perceptions highlighted the importance of environmental values as motivators, but in few cases interviewees expressed that social or even altruistic values exist, which have motivated them further (Kuckertz & Wagner, 2011, p. 524; Patzelt & Shepherd, 2011).

The following set of motivational factors mirror with assumptions concerning the social value creation, while there was consistent evidence related to the motivational effect of self-realization (Haugh, 2006, p. 196-197). Although self-realization is considered as the main motivational factor, few cases indicated that the self-realization could be driven through the self-employment or creativity. These findings are interesting, because in our understanding similar factors have not been previously considered as enhancing one’s motivation in this extent. Especially creativity is in many cases existing trait, but self-realization concerning creativity can be difficult in existing firms compared to entrepreneurial or sustainability-driven entrepreneurial firms.

In addition to the above-discussed motivational factors, further discussions with the interviewees as well as the evaluation of specific human motivations revealed additional motivational elements. Shane et al. (2003) reviewed several motivational concepts (see table 4) and the empirical data indicated that the majority of these motivational concepts are applicable in the sustainable entrepreneurship context as well. Interviewees in many cases brought up the motivational impact of following concepts: need for achievement (nAch), internal locus of control, self-efficacy, independence, drive and passion (see figure 11). All these concepts correspond with the motivational assumptions from Shane et al. (2003, p. 274) except goal setting, which was not considered as a clear motivational factor. Similarly ambiguity tolerance and risk-taking were not directly considered to motivate interviewed entrepreneurs. This might be due to the fact that some previous studies considered ambiguity tolerance and risk-taking to reflect features
of high motivation in terms of self-efficacy, whereas goal setting mirrors the entrepreneurial motivation through the nAch (Shane et al., 2003).

In addition to motivational factors, interviewees also brought up the effect of one specific cognitive factor. Although cognitive factors were excluded out of the study’s scope, the empirical data brought up a prior experience as a strong motivational factor. Commonly cognitive factors are known as knowledge, skill and abilities (KSAs) that entrepreneur can either possess or acquire, but these factors do not have a direct influence on motivations or vice versa (Locke & Baum, 2007, p. 93; Shane et al., 2003, p. 275). Interviewees’ linked prior experience with KSAs definitive elements and majority of operational functions or products reflected with the entrepreneur’s prior experience, knowledge, skills or abilities. Although Shane et al. (2003, p. 275) excluded the integrative nature of entrepreneurial motivations and KSAs, the indication of the existence of KSA factors were clear and accordingly prior experience has been characterized to have effect on the opportunity process (see figure 11). In this context the empirical data did not fully reveal, if the prior experience has only interaction with entrepreneurial motivations or should KSAs be considered more as motivational factors rather than separate factors. By analyzing the data in more detailed, there can be found indications that prior experience has effects on both ways, which further highlights the motivational and interactional effect.

Findings concerning entrepreneurial motivations revealed several motivational factors, which influence on the entrepreneur’s decision to form and exploit sustainability-oriented opportunities. Although human related motivations drawn from the conventional entrepreneurship literature (Shane et al., 2003) were mostly discussed, the further analysis revealed four additional motivational groups that have been presented in the figure 11. In this context these categories are perceived to present entrepreneurial motivations in sustainable entrepreneurship.

Similarly the empirical data indicated that the definition of entrepreneurial motivations (Locke & Baum, 2007, p. 93) is applicable in the sustainable entrepreneurship context. Although the original definition highlights the motivation in relation to the entrepreneurial goals in terms of profit, the analysis further expanded these assumptions by incorporating sustainability goals with the profit assumptions. In more detailed entrepreneurial goals are not necessarily only profit-oriented (Locke & Baum, 2007, p. 93), while sustainability can mirror the wider nature of these goals depending on the entrepreneur and context.
5.5 **Institutional Motivations in Sustainable Entrepreneurship**

In order to fully understand the motivational forces behind the sustainability-oriented opportunity process there is a need to extend the entrepreneurial motivations perspective with the motivational factors accumulating from the institutional sources. Moreover institutions and institutional motivations are highly important in connection with the new firm development (Bruton et al., 2010, p. 422). The empirical data supported this assumption by identifying various external motivations from all three pillars of regulative, normative and cultural-cognitive.

5.5.1 **Regulative**

The regulative process includes actor’s ability to set goals, rules and later monitoring others conformity to them (Scott, 2008, p. 52-53). The empirical data showed the government's role being the most influential in terms of setting these regulations and later monitoring them. Moreover the interviewees discussed the governmental regulations being unsuitable in some situations and even restrictive. The prevailing consensus was that the laws and taxes did not have any positive effect on entrepreneurs’ motivation to form and exploit new sustainability-oriented opportunities. Neither was they supporting sustainability-driven firms as the regulative environment has come too restrictive. In this situation it makes it hard for new firms to enter and also difficult for already existing firms to develop. Pacheco et al. (2010) draw similar conclusions by explaining that too strict regulations towards sustainability lock firms in “green prisons”, which is then reducing the entrepreneur’s ability to pursue new opportunities. According to the empirical data and theory governmental regulations are unable to support the sustainable entrepreneurship and acting as a motivating factor for entrepreneurs. This is because government sets regulations that are too strict for firms and are then too restricting in nature. In the similar vein Scott (2008) argued that the institutional theory is suffering from the top-down diffusion. Moreover firms are forced to follow regulations set by government or city and are now unable to control their own actions when aiming to create more innovative solutions (Cargill, 2011).

However interviewees also stated that in order governments to help firms to pursue more sustainability-oriented opportunities they need to set rules, which are demanding some actions to be performed in a more sustainable way. Some interviewees stated that cities should start evaluating sustainability as a value creating factor and not only seeing value in terms of price. These regulations are seen by interviewees to be more loose and optional, if they are not demanding any necessary actions. Scott (2008, p. 52) stated that regulative actions are monitored in order to control actor’s conformity to them. However the conformity to these regulations can be controlled in a formal or in an informal way (Scott, 2008, p. 52). It seems from the empirical data that when the more informal controlling and monitoring is used, and it lacks regulative formal consequences, it does not force actors to follow these regulations better. Furthermore the empirical data revealed that the government lacks of certain motivating regulations, which could be seen as supportive for entrepreneurs and especially for sustainability-driven entrepreneurs. Here the balance between regulations being too strict or loose making it hard to define. Therefore governmental or other regulations can be stated to be context dependent and for this reason hard to generalize. In order to motivate extensively sustainability-oriented opportunity forming and exploitation processes,
government and other regulative actors need to set the value for sustainability and constitute regulations to be more supporting than restricting.

Despite that governmental regulations are not seen to motivating sustainability-driven entrepreneurs, the government and other regulative actors offer multiple sources in order to support and help them. The empirical data supported claims that the start-up grant was helpful for interviewees, but the impact was quite low. Interviewees also had support from governmental and private incubators as well as from public advice services and entrepreneurial programs. For few interviewees the incubation period was seen as a motivating factor. However motivated sustainability-driven entrepreneurs were feeling that they lack the business sense and the incubator was offering them required knowledge as well as counseling services. Furthermore two interviewees were rewarded during the incubation period and felt that it was motivating them to continue. Scott (2008, p. 54) supported this approach by explaining that the regulative process including rewards is seen as a motivating factor in the process. Rewarding is a good way in motivating the sustainability-driven entrepreneur by giving them an accomplishment of their work.

In conclusion regulative forces in motivating sustainability-driven entrepreneurs constitute from the preferential regulative environment that is not too restricting and not too loose. Sustainability needs to be regulated more directly and the conformity to it needs to be set as a necessity. Moreover entrepreneurs seem to need resources in terms of finance and knowledge, but which are also seen affecting more in the later phase of the sustainability-oriented opportunity process. Regulative motivation towards sustainable entrepreneurship similarly needs recognizing in terms of awarding, which can be done by incentives to help the company to perform. The regulative environment is strong and when new firms enter the environment of regulative factors they are controlled by the regulations with or without their will (Bruton et al., 2010, p. 422). This needs to be seen as an important point related to regulative actions.

5.5.2 Normative

As regulative motivations were constructed in a more tangible manner, the normative pillar is seen as a more vague and therefore constructed through the behavior and interactions (Bruton et al., 2010, p. 422-423). The empirical data provided a conclusion that interviewees were affected positively or negatively by the Finland’s normative culture in terms of consumption norms, values, etc. The results are supported by Meek et al. (2010) as authors discovered that state-level-incentives, environmental consumption norms and norms of family interdependence are positively supporting the opportunity process. In this case Finland generates its own institutional environment where actors are creating and acting in a normative environment (Bruton et al., 2010, p. 423). Moreover the positive effects of a normative environment in Finland included the positive stand towards the entrepreneurship, industrial development, consumption and quality norms, which all are declared by the interviewees to be developing factors and the situation currently is further developed than it was before. Although there are still some discouraging effects, which shows that the influence from normative factors is in some way context dependent. In overall the normative development has been seen to create new opportunities and opening up new ways for existing firms to operate. Some of these already exploited sustainability-oriented opportunities have suffered in terms of higher prices when they have competed with alternatives, which are not sustainable.
Bruton et al. (2010, p. 423) explained the normative influence as follows: “what is considered as proper”. This means that people have changed the way they value products or services and it is not seen as proper anymore to just be looking at the price, but similarly enhancing the sustainable value creation.

However the development is still in process and has not reached all levels of products and services yet. Moreover due to the global and regional economic downturn (ILO, 2015, p. 11) interviewees argued that the consumer price further matters and therefore the normative context is not supporting sustainable entrepreneurship. However exceptions can be detected and for example major trends have an effect on what people appreciate and want right now. Currently one of the dominating trends globally is sustainability and it has affected the previously discussed regulative factors, but it has also shaped the behavior of normative institutions. From here the further conclusion can be drawn that the regulative pillar was suffering from being too restrictive. This lead firms to be locked in a “green prison” (Pacheco et al., 2010) and hinder firms to be innovative. In comparison the normative pillar was experienced as a more loose as the economic value is still dominating the consumer behavior.

Finally the empirical data indicated that the normative pillar is developing towards a positive direction. This positive development of normative structures could be reflected to the regulative pillar in order to similarly develop the overall institutional setting aiming to be a more motivating factor for the sustainability-oriented opportunity process. In comparison the normative pillar should be pursuing to create the sustainable environment, which would appreciate the sustainable value higher and close the gap between different value creation dimensions without disposing each other.

5.5.3 Cultural-Cognitive

The cultural-cognitive pillar was the most difficult one to examine as it accumulates from external sources. However as Scott (2008, p. 57) explained that the pillar’s internal explanations are constructed through external social actors and cultural frameworks. According to the empirical data the cultural-cognitive pillar was consisted mainly of friends, family and colleagues. It was clear from the empirical data that these cultural-cognitive factors had an effect, but in most cases the effect could not be seen as a motivating factor. However friends and colleagues were used in an idea generation process and therefore were seen as motivating factors to develop the idea further. Accordingly the acceptance of the people close to the entrepreneur had a motivating impact on entrepreneur’s decision to form and exploit sustainability-oriented opportunities. Furthermore as Javernick-Will & Scott (2010, p. 548) stated that the three pillars (regulative, normative and cultural-cognitive) are overlapping, the empirical data revealed that the social value is an important factor for entrepreneurs whether it comes from larger institutional constructs as norms or as an acceptance from people close to the entrepreneur. This goes in line with the statement from Bruton et al. (2010, p. 423) that “what is considered as proper” has an important effect on entrepreneur’s motivation to pursue sustainability-oriented opportunities.

In addition to the people's acceptance, the empirical data also showed the importance of experience and skills accumulating from the entrepreneur’s networks. Skills more related to the sustainability were seen as helpful and motivating for the entrepreneur.
Similarly Bruton et al. (2010, p. 423) stated this to be a feature of the cultural-cognitive pillar as it includes the taken-for-granted, which in this case reflected with the skills and experience of the network being available for the entrepreneur if needed.

In conclusion and in line with arguments from Bruton et al. (2010, p. 423) insufficient institutions can definitely harm the sustainability-oriented opportunity forming and exploitation process. On the other hand sufficient institutional structures can motivate the entrepreneur and operate as a supporting factor for the emergence of sustainable entrepreneurship. Accordingly the empirical data indicated support for assumptions from Javernick-Will & Scott (2010, p. 548) that the three pillars of regulative, normative and cultural-cognitive exist as separate, but are highly overlapping. Furthermore the decision to use institutional theory when studying motivations behind the sustainable entrepreneurship was seen suitable and supported by the empirical data. Based on the three pillars of the institutional theory and empirical data, motivational factors accumulating from the institutional sources and which have effects on the sustainability-oriented opportunity process are visualized in figure 12.

![Figure 12. Institutional Motivations in Sustainable Entrepreneurship.](image)

### 5.6 Motivational Impacts and Interactions

The empirical data indicated that sustainable entrepreneurship is more than a result of a human action when considering motivations (Locke & Baum, 2007, p. 96). Interviewees perceived that institutional factors are at least in some extent effecting to the entrepreneur’s motivation (Locke & Baum, 2007, p. 96), but in many cases the motivational effect was considered rather negative than positive especially in the early phases of the opportunity process. Overall interviewees perceived institutional motivations having a low impact on entrepreneurial motivations during the opportunity forming phase, but brought up evidence that the impact increases during the process. The finding is interesting while the recent changes in the Finland’s institutional structure (Finnish Government, 2015) should on the contrary provide a strong motivational support already in the beginning of the opportunity process. In this context it could be beneficial either to further enhance the motivational nature of institutional structures or lower motivational barriers as much as possible, while similarly concentrating on enhancing the motivational nature of institutions in the opportunity exploitation phase.

On the contrary interviewees perceived entrepreneurial motivations to have a visible effect on sustainability-oriented opportunity forming and exploitation process especially
in the early phases of the opportunity process. In contrast to institutional motivations the empirical data revealed that entrepreneurial motivations either remain strong throughout or their impact decreases according to the different stages in the opportunity process. The most evident indication from the empirical data concerned the inadequacy of the unilateral approach, which considers that motivational effects remain unchangeable (Shane et al., 2003). In the research context the unilateral approach has been dominant, but for example Shane et al. (2003, p. 275) argued that it leads to a faulty results. Accordingly the empirical data indicated support for the argument that entrepreneurial motivations can have similar or different effects on different stages of the entrepreneurial process (Shane et al., 2003, p. 275) when examining the phenomenon in the sustainable entrepreneurship context.

Interviewees perceptions did not indicate that specific entrepreneurial motivations change during the process, rather the empirical data revealed that for example internal locus of control remained as a visible motivational factor throughout although the effectual impact decreased accordingly in many cases. Thus the finding does not support assumptions from Shane et al. (2003) that entrepreneurial motivations affecting on specific stage of the process have no effects on the next stage. Overall the empirical data concerning entrepreneurial motivations indicated that although the impact of these motivational factors generally decreases, the factors remained generally identical despite in which stage of the process the phenomenon is studied.

These finding are definitely vital contributions, but the phenomenon cannot be fully understood without examining motivational interactions between entrepreneurial and institutional motivations. The empirical data followed the similar path of evidence with the effectual nature of institutional motivations. Interviewees perceived the impact of institutional motivations to be low at the beginning, whereas the interaction was perceived similar low or even non-existent respectively. The foundational reason was argued through entrepreneurial motivations, which were perceived to be strong and in large extent effectual at this stage. Similarly institutional factors were considered as negative influencers. Interviewees argued that in the opportunity forming phase they were able to and in many cases were forced to exclude institutional motivations out of the motivational context, because of their negative impact or because they did not have any importance for the opportunity forming. But as several cases indicated interactions at least in some extent and while the nature of opportunities (e.g. Alvarez & Barney, 2007) are dependant on the institutional structures, the overall impact of entrepreneurial and institutional motivations in the opportunity forming phase can be described as low in its nature.

The empirical data further indicated that the interaction between these two motivational sources increases in the opportunity exploitation phase. Several interviewees brought up regulative, normative and cultural-cognitive factors that have motivational effects to the entrepreneur. Although the interactional nature was not considered as strong in its nature, there were clear indications that the interaction was stronger than in the opportunity formation phase. When moving towards the sustainable value creation through the opportunity exploitation, the interaction was perceived even stronger than earlier. Interviewees often explained that the impact of institutional motivations was perceived as a weak in the early phase of the process, but further on its impact also increased independently from the entrepreneur. Naturally in some cases the entrepreneur is motivated through the institutional sources, but in many cases the
The entrepreneur is motivationally affected by the institutions despite their own will especially in the opportunity exploitation phase.

The discussed impacts and interactions are visualized in figure 13. Although the motivational interaction is commonly seen as a one-way phenomenon (Locke & Baum, 2007, p. 96), it should be mirrored more as a two-way effect similarly visualized with vertical arrows in figure 13. Institutional motivations in many cases have effects on entrepreneurial motivations, but entrepreneur’s strong internal motivations can affect on current institutional structures through the sustainability-oriented opportunity forming and exploitation process. Further this interaction enables changes in regulative, normative and cultural-cognitive structures leading to a more suitable and higher motivating institutional structures enhancing sustainable entrepreneurship (Pacheco et al., 2010, p. 465).

Figure 13. Revised Framework of Motivations in Sustainable Entrepreneurship.

Based on the empirical data and analysis the framework of motivations in sustainable entrepreneurship has been revised accordingly. In figure 13 entrepreneurial and institutional motivations have been visualized to have effects on the entrepreneur. In addition motivational interactions and impacts in different stages of the sustainability-oriented opportunity forming and exploitation process are portrayed with diverse arrows highlighting effectual differences respectively. Entrepreneurial motivations have a high impact at the opportunity formation phase, but their motivational impact decreases in the opportunity exploitation phase. The described process has been visualized with horizontal arrows at the bottom of the figure 13. On the contrary institutional motivations have low impact on the entrepreneur at the opportunity formation phase, but the impact increases at the opportunity exploitation phase. Horizontal arrows at the top of the figure 13 highlight these effectual changes accordingly.
In addition the analysis revealed interactions between entrepreneurial and institutional motivations in different stages of the sustainability-oriented opportunity process. At the opportunity formation phase the interaction is low in its nature while entrepreneurs is highly driven by entrepreneurial motivations and institutional motivations are in some extent motivationally non-supportive rather than supportive. Similarly entrepreneur is able to exclude the non-supportive motivational impact and the analysis further indicated that the opportunity formation process is in large extent driven through entrepreneurial motivations. On the contrary institutional structures are forming the nature of opportunities (e.g. Alvarez & Barney, 2007) and accordingly the interaction still exist, although on a small scale. When analyzing the opportunity exploitation phase the interaction becomes stronger while institutional structures in Finland have motivationally supportive motivational factors that have effects on entrepreneurial motivations. Furthermore the interaction becomes stronger in the value creation phase, because institutional structures (e.g. consumption norms) are determining whether the value created through 3BL is desired in a specific institutional context having similarly effects on entrepreneurial motivations. Here the motivational interaction can occur despite entrepreneur’s own will. These interactional impacts have been further visualized with vertical arrows in figure 13. The figure 13 can be found in a larger scale from appendix 6.
6 Conclusions
In the final chapter of the thesis conclusions from the study are presented. The aim is to provide answers to research questions as well as to the study purpose. Furthermore theoretical, social and practical contributions based on the findings are discussed. In the final part limitations related to the study and suggestions for the future research are similarly displayed.

The purpose of the study was to explore entrepreneurial and institutional motivations, which affect entrepreneur’s decision to form and exploit sustainability-oriented opportunities. Although the strong focus was on exploring the motivational factors derived from two different sources of entrepreneurs and institutions, the study similarly aimed to further identify interactions between variables in different stages of the opportunity process. Based on the thorough literature review and identified knowledge gaps the following research questions were formed:

(1) What entrepreneurial motivations in Finland affect entrepreneur’s decision to form and exploit sustainability-oriented opportunities?
(2) What institutional motivations in Finland affect entrepreneur’s decision to form and exploit sustainability-oriented opportunities?
(3) What are the interactions between entrepreneurial and institutional motivations affecting entrepreneur’s decision to form and exploit sustainability-oriented opportunities in Finland?

A qualitative study with an exploratory research approach was conducted in order to answer these specific research questions. The empirical data was collected from nine entrepreneurs, two individuals working as business incubators and university researcher who all have personal experience from the sustainable entrepreneurship. Through the fruitful discussions and consistent data analysis further insights were gathered enabling to answer research questions and fulfill the study purpose.

6.1 Research Questions and Study Purpose

Prior presenting main findings related to the study’s research questions, one essential finding could be drawn based on the analysis. Currently there is no common definition for the sustainability-driven entrepreneurial firms in the academic literature. According to the study findings, the viable definition can be drawn from several sources of literature concerning start-ups, entrepreneurial firms, entrepreneurial orientation and sustainable value creation (Carland et al., 1984, p. 358; Covin & Slevin, 1991, p. 7; Hockerts & Wüstenhagen, 2010, p. 483; Luger & Koo, 2005, p. 19; Runyan et al., 2008, p. 583; Schaltegger & Wagner, 2011, p. 226; Wiklund et al., 2009, p. 359). While the analysis indicated strong support for the suggested definition, similarly sample firms extensively fulfilled all theoretical factors further strengthening the applicability of the given definition in the sustainable entrepreneurship context.

In reference to the first research question the study provided clear evidence that entrepreneurial motivations play a strong role in the sustainability-oriented opportunity forming and exploitation process. As the conventional entrepreneurship research considers motivations at least in some extent correspond to the profit related approach (e.g. Carland et al., 1984), the sustainable entrepreneurship goes beyond this dominant approach. Certainly profitable opportunities and future growth motivate sustainability-
driven entrepreneurs similarly arguing against the opposite view, which assumes that only altruistic motivations are viable in the sustainable entrepreneurship context (e.g. Patzelt & Shepherd, 2011). The more realistic approach to the phenomenon should be considered as a more “middle-ground” view where motivations in sustainable entrepreneurship are consisted of profit-related as well as more altruistic entrepreneurial motivations. In many cases the motivation accumulates from personal values, which can be environmental, social or even altruistic. However these personal values do not exclude personal economic motivations out of the entrepreneur’s scope.

When considering the sustainability-oriented opportunity process, entrepreneurial motivations are commonly linked with self-realization aspects. In this context self-realization through for example self-employment can be considered as a motivational factor. Self-realization can be similarly linked with the conventional entrepreneurial motivations, but sustainable entrepreneurship provides a more fruitful motivational foundation for executive actions. Sustainability-oriented opportunities are commonly formed and exploited based on opportunity discovery and creation theories, which require in some extent more creative approach from the entrepreneur similarly providing a channel for self-realization. In addition challenges in sustainable development bring out extensive amount of opportunities for discovery or creation actions that further extends the motivational base for self-realization.

Human motivations derived from the conventional entrepreneurship literature (see Shane et al., 2003) has been seen as contributing factors in the current research development, but the suitability of these motivations to the sustainable entrepreneurship context has not been tested previously. The empirical study revealed that majority of motivational factors is suitable in this specific context. Although goal setting, ambiguity tolerance and risk-taking were not directly highlighted as motivational factors, there can be drawn strong integrative features between occurring and non-occurring factors. It similarly enables a more compatible perspective by bringing entrepreneurial human motivations into the sustainable entrepreneurship context.

The study brought up a singular motivational factor, which integrates all the other entrepreneurial motivations under the umbrella of prior experience. Although the entrepreneurship research treats cognitive factors as separate from the motivational factors (see Shane et al., 2003, p. 275), the further analysis in the sustainable entrepreneurship context indicated that cognitive factors have motivational impact to the entrepreneur and/or to other motivational factors. Thus there is clear evidence that cognition and motivation cannot be separated in the real life unlike for the purpose of the specialized study (Locke, 2000, p. 414). Due to the nature of the empirical part of the study and methodological standpoints the real life cannot be separated from the further conclusions, which support discussed findings.

In reference to the second research question the study aimed to reveal institutional motivational elements in terms of the three pillars of regulative, normative and cultural-cognitive. The findings were indicating the importance of the institutional environment as a source of motivation in the process of forming and exploitation of sustainability-oriented opportunities. However the relevancy of different motivational elements varied and the influence was seen as positive as well as negative. As an example the regulative environment in Finland was discussed to be in some occasions unsuccessful as the government laws are set to be too restrictive, but on the other hand governmental
incentives like start-up grants were seen as motivating and helping new sustainability-driven entrepreneurial firms. Moreover the change in consumption norms was seen motivating as people are now more concerned about the sustainability of products and services. People are also more concerned about the money, which normally hinders the attractiveness of more sustainable options. The study addressed that the institutional environment has an impact, but it keeps continuously on changing and due to this the effect is more or less negatively or positively motivating.

Despite the changing institutional environment the study revealed its importance in supporting the sustainable entrepreneurship and in order to include the economic value into the sustainability-oriented opportunity process. The regulative laws, normative norms and cultural-cognitive social networks are seen as motivating when the support is assisting the sustainability-driven entrepreneurial firm to better compete with the non-sustainable firms or to even make it economically possible to pursue for sustainable-oriented opportunities. For example the cultural-cognitive social networks were in overall seen as motivating when the entrepreneur is encouraged to pursue for the sustainability-oriented opportunity and to get more assurance that the opportunity could include the economic value. Consequently this means that the idea is pursued further when it is motivated to include the economical value as well. This goes in line with Elkington’s (1999, p. 397) clearance of sustainability, which is constructed from the 3BL perspective where economic, environmental and social values exist simultaneously.

In reference to the third research question the study brought up the complex nature of interactions between entrepreneurial and institutional motivations. Findings were clearly indicating that the clear interaction exists, but the complexity concerns more about the intensity of interactions in different stages. Additionally there cannot be draw far-reaching conclusions, if the directional pattern of interactions can be mirrored through one-way or two-way processes. The findings indicated more two-way process in the long run, which in addition follow dominant theoretical assumptions (e.g. Pacheco et al., 2010). As the study follows exploratory research approach the discussed findings can be seen as satisfactory, but future research is required in order to achieve descriptive conclusions.

In addition interactions are furthermore affected by motivational impacts of separate motivational factors in different stages of the sustainability-oriented opportunity process. More practically stated findings indicated that the motivational impact of entrepreneurial motivations is strongest in the opportunity formation phase, whereas the motivational effect of institutional structures remains low at this stage. Accordingly the interaction between motivational factors remain low, because institutional sources either provide less positive or non-existent motivational input, which is rather easy for the entrepreneur to ignore. At the opportunity exploitation phase the role of institutional motivations increase in large extent generating stronger interaction between defined motivational factors. Accordingly findings demonstrated that although the entrepreneur might pursue to ignore external motivations, institutional factors (e.g. trends) determine if the sustainable value creation generates any customer demand. If the institutional structure favors entrepreneur’s operative processes, it similarly creates strong positive motivational effect impacting on internal motivations and vice versa.
As discussed the main purpose of our study was to explore entrepreneurial and institutional motivations, which affect entrepreneur’s decision to form and exploit sustainability-oriented opportunities. The main result from the study in a form of a revised framework of motivations in sustainable entrepreneurship (see figure 13) closely relates to the study purpose. It aims to visualize entrepreneurial and institutional motivations affecting to entrepreneur’s decision-making. In addition the revised framework of motivations in sustainable entrepreneurship describes what are the motivational impacts and interactions in different stages of the sustainability-oriented opportunity process. Accordingly the revised framework of motivations in sustainable entrepreneurship fulfills the purpose of generating a better understanding of the phenomenon and the interactional nature of motivational variables related to the sustainable entrepreneurship in Finland. Similarly the study provides viable knowledge for the use of future research by creating a foundational knowledge base for the further research development.

6.2 Knowledge Contributions

One of the main objectives of the study was to contribute on existing knowledge and theories concerning motivations in the sustainable entrepreneurship context. The current literature has not in large extent contributed on examining motivational drivers and interactions leading to the sustainability-oriented opportunity process (e.g. Hall et al., 2010). The study pursued to close the research gap through a constructed framework, which visualizes motivational factors and their interactions related to the phenomenon. Accordingly the framework of motivations in sustainable entrepreneurship provides relevant knowledge regarding the sustainable entrepreneurship, which can be seen as the main contributive factor to the existing knowledge accumulating from the study.

Sustainability has been extensively studied through a double bottom line approach (Belz & Binder, 2015, p. 2; Zahra et al., 2009, p. 521-522), which has in many cases omitted the social value creation and social development. The study contributed on the current knowledge by incorporating typologies of social entrepreneurship as well as different forms of social value creation into the study in order to strengthen the value creation approach through the 3BL. The findings clearly indicated that typologies of social entrepreneurship could be adopted into the sustainable entrepreneurship context with small modifications, which enhanced further knowledge contributions from the study. In addition the social value creation can be reflected through the social entrepreneurship literature (see Austin et al., 2006; Haugh, 2006) in order to create a more complete view of the phenomenon.

Similarly sustainable entrepreneurship has been previously studied based on the theoretical assumptions accumulating from the opportunity discovery theory. Research inquiries (e.g. Pacheco et al., 2010) have called for further insights, which would introduce the opportunity creation theory into the future studies. Thus the study has contributed on the existing knowledge by integrating the opportunity creation theory in the framework. In addition findings generated further knowledge that sustainable entrepreneurship cannot be studied without a similar approach. Because of the novelty of the phenomenon and external circumstances, supply and demand are in many cases non-existent, which correspond with the theoretical assumptions related to the opportunity creation theory.
Finally the current development in the sustainable entrepreneurship research remains scarce and previous researches (e.g. Hall et al., 2010; Thompson et al., 2011) are calling for further empirical contributions. The study aimed to decrease the scarcity through an empirical study in Finland’s institutional setting similarly contributing to the existing knowledge and research inquiries. Whereas the sustainable entrepreneurship research is considered as a scarce research area, it similarly reflects to the scarcity of the definitive nature of sustainable entrepreneurship. The study has contributed to the existing knowledge by aligning different theoretical assumptions from the conventional, social, environmental and sustainable entrepreneurship in order to generate a more comprehensive view related to the phenomenon and definition. In addition findings from the study supported the constructed definition further enhancing the contributive nature of the study related to the existing knowledge.

6.3 Social and Practical Contributions

Although economic and environmental values accumulating from the sustainable entrepreneurship are a significant factor related to the phenomenon, the study similarly identified possibilities for further social value creation in a local as well global context. According to the findings these social development aspects can be divided between individual and society factors. Sustainable entrepreneurship clearly provides a fruitful platform for individuals to pursue self-realization and self-employment actions, which further enhance social value creation improving individual’s social conditions. When considering social contributions in a larger context, the social value creation can be characterized through sustainable bricoleurs, constructionists and engineers. Depending on the nature of the sustainability-driven entrepreneurial firm, social as well as economic and environmental value can be created in a more local or global context. Thus both forms should be seen vital for more extensive social development, which furthermore highlights social contributions accumulating from the study.

The findings from the study support assumptions that public policies are playing a significant role in the sustainable development. Although the unilateral top-down perspective should not be considered as the most efficient approach, the study brought up practical contributions that can further assist institutional decision-makers to enhance sustainable development through entrepreneurship. When examining the phenomenon based on Finland’s institutional constructs, the overall motivational impact was considered in many cases negative especially in the opportunity forming phase. In this context public policies should in larger extent provide motivationally supportive institutional structures for sustainability-driven entrepreneurs. On the contrary the study findings revealed that the sustainability-driven entrepreneur was mainly motivated through entrepreneurial motivations in the opportunity forming phase. Related to this finding, public policies and institutional structures are more motivationally significant during the opportunity exploitation phase. Thus the future institutional decision-makers could develop public policies that would progressively provide motivational support during the opportunity exploitation phase. In any case smaller amount of motivational obstacles accumulating from the institutional sources would help self-motivated sustainability-driven entrepreneurs to contribute to the sustainable development in a local and global context.

Closely related to the public policies, the study provided general knowledge for entrepreneurs concerning the motivational factors and their interactions in the
sustainability-oriented opportunity process. The findings indicated that the sustainability-driven entrepreneur in Finland seeks in many cases to avoid motivational interactions from the institutional sources due to their negative impact. Despite the ignorance, institutional motivations increase their impact during the sustainability-oriented opportunity process with or without the acceptance of the entrepreneur. Although entrepreneurial motivations remain strong throughout the opportunity process, institutional factors are determining if the opportunity is exploited successfully or unsuccessfully. Similarly institutional factors have a strong impact on entrepreneurial motivations depending on the opportunity and value creation context.

6.4 Limitations and Suggestions for Future Research

The study was conducted in Finland and similarly the sample of the study was completely constructed from the Finnish entrepreneurs and experts. Accordingly this can be seen as a limitation while the results accumulating from the study are context-dependent and cannot be fully reflected with other contexts. In the similar vein the limitation leads to a potential future research topic whereas similar study could be conducted in the different geographical area or in different institutional environment. Similarly the sample was not consisted of interviewees from a specific industry, which further limits the context specific generalization of the study findings. Herein future studies could study motivations in industry specific context (e.g. renewable energy industry), which could further provide social and practical contributions accumulating from the sustainable entrepreneurship research.

The data collection process brought up additionally sample specific limitation, which relates to personal backgrounds of the study sample. The study does not take into account differences in individual backgrounds that can have effects on how individuals perceive entrepreneurial and institutional motivations. For example an individual with an engineering background could be increasingly affected by institutional motivations, because often the opportunity forming phase was described to be extensively longer than with a person having a business background. Similarly the study excluded differences in personal resources, which according to the findings can have an impact on how sustainability-driven entrepreneur is motivated.

During the data collection process there were difficulties for interviewees to provide motivational and interactive factors concerning the opportunity forming phase. This was due to the fact that the age factor, when defining the sample, was left in some extent loose, which limited interviewees in providing motivational factors. In some cases the opportunity was discovered or created several years ago that hindered interviewee to provide exact motivational factors. The future research could examine sustainability-driven entrepreneurial firms that are still in the start-up phase in order to provide more accurate knowledge on these motivational factors in the early phases of the opportunity process. These studies would also provide a fruitful platform for comparative studies, which could similarly contribute to the existing research.

The theoretical definition of the sustainable value in the study can be seen as a limitation as sustainable value can be seen from different perspectives. Moreover the study is limited to use of a certain definition and perspective of sustainable value, which can therefore cause a bias between alternative definitions. There is also a lack of prior research studying motivations towards forming and exploitation of sustainability-
oriented opportunities, which could have been reflected to this study. Although the relevant theories were discovered the need for prior studies could have showed the already faced problems and help to take these into consideration during the research process.

In addition the institutional theory was seen as one of the most suitable theories for the study, but it is similarly limiting the study in terms of data collection and analysis. The institutional theory is studied through the three pillars namely regulative, normative and cultural-cognitive, which caused problems for interviewees to understand without further explanations. Due to this the data collection falls into a limiting problem, where the subject needed further explaining and can therefore result in overly leading answers. However this was seen as a necessity and the explaining was pursued to be avoided whenever possible. Furthermore this could be seen as a possible subject for future research, where the institutional theory is replaced with other suitable theory utilizing the similar study structure. Moreover the study was conducted in Finland and the data was collected in Finnish language, which needed to be translated into English. This can cause the translator to use language that differs in the underlying meanings and can therefore be seen as a limitation for this study. Furthermore the qualitative data was collected individually by the researcher and the evaluation of the data was dependent on the researcher's own understanding. This is a limitation for the study and can have caused a bias between the two researchers. Moreover it can also cause bias between the understandings of the researcher and the interviewed person as the researcher being more into the subject than the interviewee. This can be reflecting to the data analysis of the study as the interviewees were in some cases very limited with their answers concerning their own business, which required researcher to build understanding of the phenomenon from scarce data. The future research could avoid the similar problem by adopting quantitative data collection methods, which would exclude researcher's own understanding regarding the subject.

The study achieved stated objectives additionally creating a better understanding of the phenomenon by identifying the entrepreneurial and institutional motivational factors. More specifically the findings indicated that the entrepreneurial motivations, derived from the conventional entrepreneurship literature, were similarly applicable in the sustainable entrepreneurship context. In addition self-realization, personal values, opportunity as well as prior experience are constructing the entrepreneurial motivations in sustainable entrepreneurship. The institutional motivations are considered to have similarly a strong effect on entrepreneur, whereas the regulative factors (e.g. start-up grants and laws) are principal sources of motivation. In this context the findings concerning the normative and cultural-cognitive factors indicated that for example consumption norms and social networks have effects on the entrepreneur’s decision to form and exploit sustainability-oriented opportunities. Remarkably the findings indicated that the interaction between entrepreneurial and institutional motivations is low in the early phases of the sustainability-oriented opportunity process. The motivational interaction increases throughout the process highlighting the important role of institutional structures in encouraging sustainability-driven entrepreneurs as well as enhancing their entrepreneurial motivations and vice versa. Accordingly the study succeeded in contributing to the existing knowledge as well as to the social and practical aspects related to the phenomenon of sustainable entrepreneurship aiming to lead the world into the “new industrial revolution”.
Reference List


Falk, I., & Guenther, J. (2007). Generalising from Qualitative Research: Case studies from VET in Contexts. New South Wales: AVETRA


## Appendix 1: Interview Guide Entrepreneurs.

<table>
<thead>
<tr>
<th>I Research Introduction</th>
<th>Get the interview started. Present the study background and persons doing it so interviewee gets familiar with the subject. Discuss about anonymity, recording process and other ethical issues.</th>
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<tbody>
<tr>
<td>1. Thank you for the interview</td>
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<td>2. Interviewer introduction</td>
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<td>3. Introduction to the research</td>
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<td>4. Ethical and anonymity issues</td>
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<thead>
<tr>
<th>Questions</th>
<th>Aim of the Question</th>
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<tbody>
<tr>
<td><strong>II Background Questions</strong></td>
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<tr>
<td>5. Could you explain your personal background: age, education, previous work related experience and experience related to entrepreneurship?</td>
<td>Generate understanding related to the interviewee’s background and get the discussion going.</td>
</tr>
<tr>
<td>6. Could you briefly explain the main idea of your firm? What are the main products/services and how your business model works?</td>
<td>Generate understanding related to the firm, its products/services, and firm’s value creation as well as how the firm operates.</td>
</tr>
<tr>
<td>7. How old is the firm? Do you have any paid employees? Are you a subsidiary firm or managed by another firm? Is the firm personality driven, growth-oriented and self-sustained? Do you think that you work in innovative, risk-taking and proactive way? What is the value that your firm provides for stakeholders?</td>
<td>See if the firm is fulfilling the dimensions in our definition related to the sustainability-driven entrepreneurial firm.</td>
</tr>
<tr>
<td>8. How would you define sustainability and sustainable entrepreneurship?</td>
<td>See what is the interviewee’s perception on sustainability and sustainable entrepreneurship.</td>
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| III Opportunity Formation | | |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9. How did you come up with the business idea? Do you consider it as innovative? Did you think about it for long time or was it a more rapid process? Did you come up with the idea by yourself? | Generate knowledge about the process behind the opportunity formation. |
| 10. How about demand and supply? When you came up with the idea, were there similar suppliers on the market? Was there customer demand for the product/service? How did you evaluate possibilities to exploit the idea along the way? | Investigate, if the opportunity was discovered or formed and if the evaluation was carried out throughout the process. |
| 11. What were the driving factors that made you develop the idea further? Who/what encouraged or discouraged you? | See if the interviewee is able to provide motivations without providing alternatives. |
| 12. If we think about regional/local level authorities, legislations, policies and regulations etc., do you think that they encouraged or discouraged you to work with the idea? If positive influence, please | See what is the role of regulative pillar related to institutional motivations and if it has encouraging or discouraging role in sustainable entrepreneurship. |
13. Did different social norms (e.g. consumption) in Finland have influence on your decision to take the idea further? Does society encourage entrepreneurs to develop new business ideas or does it discourage entrepreneurial actions? How do you think that your business idea fits into the Finnish norms?

Aims to reveal normative factors in the Finnish society that have either encouraged or discouraged entrepreneur during process.

14. What kind of impact your personal networks (family, friends etc.) had on the idea process? Do you come from a family with entrepreneurs?

Aims to provide knowledge about the social-cognitive factors especially related to social networks and life, which had strong effects on individual’s behavior.

15. What kind of attributes or traits typical entrepreneur has? What kind of attributes you as an entrepreneur have? Do you think that these had influence on your decision to develop the business idea further and how they influenced?

Generate knowledge about what internal factors are considered to be vital for entrepreneur and what factors had positive or negative effects on interviewee’s decision to pursue with the opportunity.

### IV Opportunity Exploitation

16. When you decided to establish a new firm, what factors influenced to you positively during the process? What were the discouraging factors?

Provide an open question aiming to reveal, if exploitation was driven through similar motivations than in the formation process.

17. Why did you decide to establish a company? Did you have any other alternatives to bring the product/service to the market?

To see if entrepreneur had possibilities to exploit the opportunity through an existing firm or was a new firm the only option.

18. How were you able to calculate and evaluate risks or did risks have any influence on your decision to establish a firm?

Investigate if risk and uncertainty had influence on decision-making related to the opportunity exploitation.

19. Do you think that earlier discussed external and internal factors influenced you similarly during this phase or did for example regulative factors have different impact? If yes, could you explain how?

Aim to generate knowledge, if institutional and entrepreneurial motivations are different in the opportunity exploitation phase. If the entrepreneur does not remember what was discussed go back to questions 11-15.

20. What is the created value through the company for you and your stakeholders? Is the main goal to create economical value or do you have other aspirations?

Value is described through 3BL and the question helps to clarify, if entrepreneur consider the value to be created from all dimensions or is other dimensions more visible.

21. Do you consider that your firm creates value most efficiently in a more local context or do you think that you can scale up your operations rather easily by for

Generate understanding, if the firm creates value in more local (bricoleurs) or more global (engineers) context. Also aims to reveal, if the firm is embedded to a local...
<table>
<thead>
<tr>
<th>example acquiring new resources globally? Are you ambitious or more careful in scaling up your business?</th>
<th>resources and stakeholders.</th>
</tr>
</thead>
<tbody>
<tr>
<td>V Conclusion</td>
<td>The aim is to get more knowledge about the interactions between institutional and entrepreneurial motivations. Necessary to use follow-up questions.</td>
</tr>
<tr>
<td>22. Did external factors have more positive or negative influence on your personal motivation to develop the idea and later bring the product/service into the market or do you think that your personal motivations had stronger influence compared to external factors?</td>
<td>See what entrepreneurial motivations had affect during the process. The purpose is to rank factors based on the opportunity formation and exploitation process related to the entrepreneur’s firm, not acquire opinions in a wider context.</td>
</tr>
<tr>
<td>23. How would you evaluate of the influence of these different motivational factors by using the scale from 1 (least motivation) to 5 (highly motivating) when considering the process starting from the idea until the establishment of a new firm?</td>
<td></td>
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</table>
### Appendix 2: Interview Guide Experts.

<table>
<thead>
<tr>
<th>I Research Introduction</th>
<th>Get the interview started. Present the study background and persons doing it so interviewee gets familiar with the subject. Discuss about anonymity, recording process and other ethical issues.</th>
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<tbody>
<tr>
<td>1. Thank you for the interview</td>
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<td>2. Interviewer introduction</td>
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<tr>
<td>3. Introduction to the research</td>
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<td>4. Ethical and anonymity issues</td>
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<thead>
<tr>
<th>Questions</th>
<th>Aim of the Question</th>
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</thead>
<tbody>
<tr>
<td>II Background Questions</td>
<td>Generate understanding related to the interviewee’s background and get the discussion going.</td>
</tr>
<tr>
<td>5. Could you explain your personal background: age, education, and previous work related experience?</td>
<td>Generate understanding of interviewee’s experience related to sustainable entrepreneurship and entrepreneurs.</td>
</tr>
<tr>
<td>6. What is your experience concerning sustainable entrepreneurship? In what kind of roles you have worked related to it?</td>
<td>See what is the interviewee’s perception on sustainability and sustainable entrepreneurship.</td>
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<tr>
<td>7. How would you define sustainability and sustainable entrepreneurship?</td>
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<tr>
<th>III Opportunity Process</th>
<th>Generate knowledge about the process behind opportunities.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. How would you define typical entrepreneurial process? What kind of differences it has compared to sustainable entrepreneurship?</td>
<td>Aims to deepening the understanding behind the opportunity process in sustainable entrepreneurship and give an open question for motivational factors.</td>
</tr>
<tr>
<td>9. How do entrepreneurs come up with the business idea and how innovative these usually are? Are they commonly constructed individually or with someone else?</td>
<td>Investigate, if the opportunity is commonly discovered or formed and if the evaluation is carried out throughout the process.</td>
</tr>
<tr>
<td>10. Is there commonly customer demand and/or supply existing for the new product/service? Do they continuously evaluate the opportunity along the way?</td>
<td>To see if entrepreneur commonly has possibilities to exploit the opportunity through an existing firm or is a new firm the only option.</td>
</tr>
<tr>
<td>11. What are the main factors that encourage entrepreneurs to establish a new firm rather than selling their idea to an existing firm? Do they consider other possibilities?</td>
<td>Investigate if risk and uncertainty has influence on decision-making related to the opportunity exploitation.</td>
</tr>
<tr>
<td>12. How they calculate and evaluate risks or do risks have any influence their decision to establish a firm?</td>
<td>Value is described through 3BL and the question helps to clarify, if entrepreneur considers the value to be created from all dimensions or is other dimensions more visible.</td>
</tr>
<tr>
<td>13. How they see value creation for themselves and their stakeholders? Is their main goal to create economical value or do they have other aspirations?</td>
<td>Generate understanding, if the firm creates value in more local (bricoleurs) or more global (engineers) context. Also aims to</td>
</tr>
<tr>
<td>14. Do they consider value creation in a more local or more global context? Does local embeddedness cause problems for</td>
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<tr>
<th>Question</th>
<th>Aim or Note</th>
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<tbody>
<tr>
<td>scaling up operations? Are sustainability-driven entrepreneurs more or</td>
<td>reveal, if the firm is embedded to a local resources and stakeholders.</td>
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<tr>
<td>less ambitious in their expansion plans than conventional entrepreneurs?</td>
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<tr>
<td><strong>IV Motivational Factors</strong></td>
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<tr>
<td>15. What are commonly the driving factors that encourage entrepreneurs to develop the idea further? Are these factors different when they decide to take the idea into the market? Who/what encourage or discourage them?</td>
<td>See if the interviewee is able to provide motivations without providing alternatives.</td>
</tr>
<tr>
<td>16. If we think about regional/local level authorities, legislations, policies and regulations etc., do you think that they encourage or discourage them to work with the idea? If positive influence, please explain more detailed. If negative influence, what were the main obstacles or slowing factors? Are factors different when entrepreneur decides to take the idea into the market?</td>
<td>See what is the role of regulative pillar related to institutional motivations and if it has encouraging or discouraging role in sustainable entrepreneurship. Provides information what factors are influencing entrepreneur’s decision-making.</td>
</tr>
<tr>
<td>17. Do different social norms (e.g. consumption) in Finland have influence on entrepreneur’s decision to take the idea further? Do norms encourage entrepreneurs to develop new business ideas or does it discourage sustainability-driven entrepreneurial actions? What kind of influence norms has on entrepreneur’s decision to establish a new firm?</td>
<td>Aims to reveal normative factors in the Finnish society that are either encouraging or discouraging entrepreneur during the process.</td>
</tr>
<tr>
<td>18. What kind of impact has social networks (family, friends etc.) and social life on the idea process? What is the impact during the exploitation phase? Are sustainability-driven entrepreneurs commonly from families with other entrepreneurs?</td>
<td>Aims to provide knowledge about the social-cognitive factors especially related to social networks and social life, which have strong effects on individual’s decision-making.</td>
</tr>
<tr>
<td>19. What kind of attributes or traits sustainability-driven entrepreneur has? What kind of influence these have on idea and exploitation process? What kind of internal motivational factors have you seen in sustainability-driven entrepreneurs?</td>
<td>Generate knowledge about what internal factors are considered to be vital for entrepreneur and what factors have positive or negative effects on entrepreneur’s decision to pursue with the opportunity.</td>
</tr>
<tr>
<td><strong>V Conclusion</strong></td>
<td></td>
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<tr>
<td>20. Do external factors have more positive or negative influence on entrepreneur’s motivation to develop the idea and later bring the product/service into the market or do you think that personal motivations had</td>
<td>The aim is to get more knowledge about the interactions between institutional and entrepreneurial motivations. Necessary to use follow-up questions.</td>
</tr>
<tr>
<td>stronger influence compared to external factors?</td>
<td>21. Would you like to add anything else?</td>
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<td>------------------------------------------------</td>
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<td>Possibility for the interviewee to provide additional data or add something to already discussed themes.</td>
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</table>
Appendix 3: Confirmation Email.

Hello (Name),

Firstly thank you for your interest to participate in our study by providing us a possibility to interview you. As discussed before we would like to provide more information regarding our Master’s Thesis and interview. Currently we are studying in Umeå School of Business and Economics and our research concerns about our Master’s Thesis, which similarly finalizes our studies in the University. To verify our request, please see a confirmation letter from our Thesis Supervisor as attached.

Our Master’s Thesis relates to the context of sustainable entrepreneurship in Finland and more specifically we aim to study motivations related to the sustainable entrepreneurship. We approached your company earlier, because our background research revealed that the operations of your company fulfill the definitive factors of our study regarding sustainability and entrepreneurship. The study has been divided into two motivational factors concerning institutional (external) and entrepreneurial (internal) motivations. We believe that your insights and inputs can provide helpful information for us to execute the study. The interview does not require any additional preparations and we wish you to provide honest answers to our questions.

Your participation is voluntary and if you wish to cancel your participation, you are free to do so in any point of time. The study will be done anonymously and we do not attach any information to the study concerning your company name or your personal information. If possible, we would like to record the interview. The purpose of this is to collect the information from the tape after the interview has been finished. We are storing the tape in our personal computers and the information or the tape will not be used in any other purposes outside the study. We will send you a summary concerning the discussed themes, which aims to ensure that we have understood your answers correctly. Please note that the duration of the interview is around 1 hour.

We wish that the interview could be conducted between 21st of March and 31st of March 2016. Accordingly, we would like to hear what are the most suitable days and times for you. Please send us your suggestions for the further discussion.

Thank you once again for your interest to participate and please feel free to contact us, if you have any questions regarding the interview or the study.

Kind Regards,

(Name of the students and contact information)
Appendix 4: Confirmation Letter.

INTERVIEW REQUEST FOR MASTERS THESIS

Dear Madam/Sir,

My name is Zsuzsanna Vincze and I am an Associate Professor at the Umeå School of Business at Umeå University (Umeå, Sweden). I am currently the supervisor of master’s thesis projects.

I would like to confirm that Kari Kuikka and Miska Ahokas are enrolled at Umeå University (Umeå, Sweden) and undertake Business Development and Internationalization Master’s Programs. In fulfilling the Master’s program they must write a Master thesis jointly. They are therefore currently in the process of doing their Master thesis on the topic “Motivating Entrepreneurs Towards “New Industrial Revolution” A Multiple Case Study of Sustainability-Driven Institutional and Entrepreneurial Motivations in Finland.” and as part of their research they will require to carry out interviews in various organizations. A practical approach together with the theoretical is highly valued at our School and we therefore encourage students to partner with organizations such as yours in order to obtain relevant knowledge on the workings of business through research. I thereby request you to accord them the opportunity to carry out this research in your organization, by offering them the necessary support so as to enable them complete their thesis successfully.

In case of any further queries or clarifications on this matter, please do not hesitate to contact me.

Sincerely,

Zsuzsanna Vincze, PhD
Associate Professor
Head of Entrepreneurship section
Appendix 5: Entrepreneurial Motivations Summary.

Interviewed entrepreneurs scaled each motivational factor according to Likert scale, where 1 being the least motivating and 5 being a high motivating factor. The ranking concerns motivations that affected entrepreneur during the opportunity formation and exploitation process, which lead to an establishment of a sustainability-driven entrepreneurial firm.

<table>
<thead>
<tr>
<th>Motivations</th>
<th>ENT 01</th>
<th>ENT 02</th>
<th>ENT 03</th>
<th>ENT 04</th>
<th>ENT 05</th>
<th>ENT 06</th>
<th>ENT 07</th>
<th>ENT 08</th>
<th>ENT 09</th>
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</thead>
<tbody>
<tr>
<td>Need for Achievement</td>
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<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>3</td>
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<td>Ambiguity Tolerance</td>
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<td>Internal Locus of Control</td>
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<td>Self-efficacy</td>
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Appendix 6: Revised Framework of Motivations.